BUMPING ALONG THE BOTTOM: The Challenge for State & Local Agencies During Sustained Slow Economic Growth & Low Returns on Investment

Presentation by Ron Knecht, MS, JD & PE
To Western Coalition of Arid States (WESTCAS)
Noon Thursday 27 June 2013 – San Diego CA

Agenda

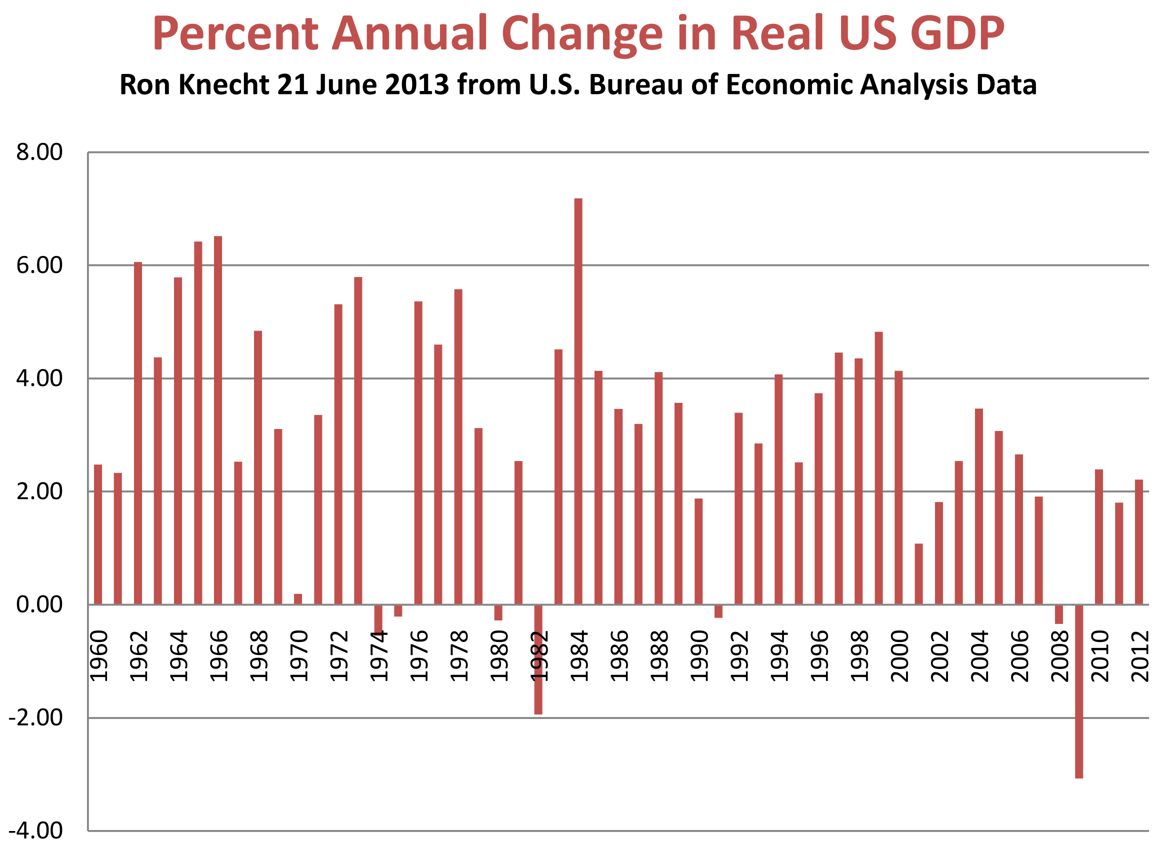
- Fundamental Perspectives
- Historic Economic Growth & Investment Returns
- Fiscal, Monetary/Credit and Regulatory Policies
- Problems and Prospects in Education, Technological Change and Business Innovation
- Upshot: Sustained Slow Economic Growth
- No Help from Rest of the World: On the Whole, Most Are Doing and Will Do Worse Than U.S.
- Effects of Demographic Challenges Already Arising in US; Worse for Other Major Economies
- Correlation of Investment Returns and Real Economic Growth; Inflation Problems/Prospects
- Four Challenges for WESTCAS Members and Some Hope

Fundamental Perspectives

- 1) **Primary Determinants of Economic Growth:** Political & economic institutions, policies, and practices – especially public fiscal (taxing & spending) policies, monetary & credit policies (& effect on total debt), regulation & property rights
- 2) **Demographics Are Also Central:** Economic growth varies directly with population growth; population age distribution matters hugely, especially for productivity and economic growth and for sustainability of entitlements programs.
- 3) **Expected Investment Returns Vary Directly with Expected Long-term Economic Growth** – This fact is important to public-sector cost of debt and to entitlements funding adequacy (pensions, health insurance).

Historic Economic Growth

- U.S. has experienced long-term slowdown of economic growth, especially in recent years.
- Annual economic growth rate chart is very volatile, but shows overall slowing.
- Five- and ten-year rolling-average growth charts show slowing economic growth more clearly.


Percent Annual Change in Real US GDP
Ron Knecht 21 June 2013 from U.S. Bureau of Economic Analysis Data
8.00
6.00
4.00
2.00
0.00
-2.00
-4.00
1960
1962
1964
1966
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
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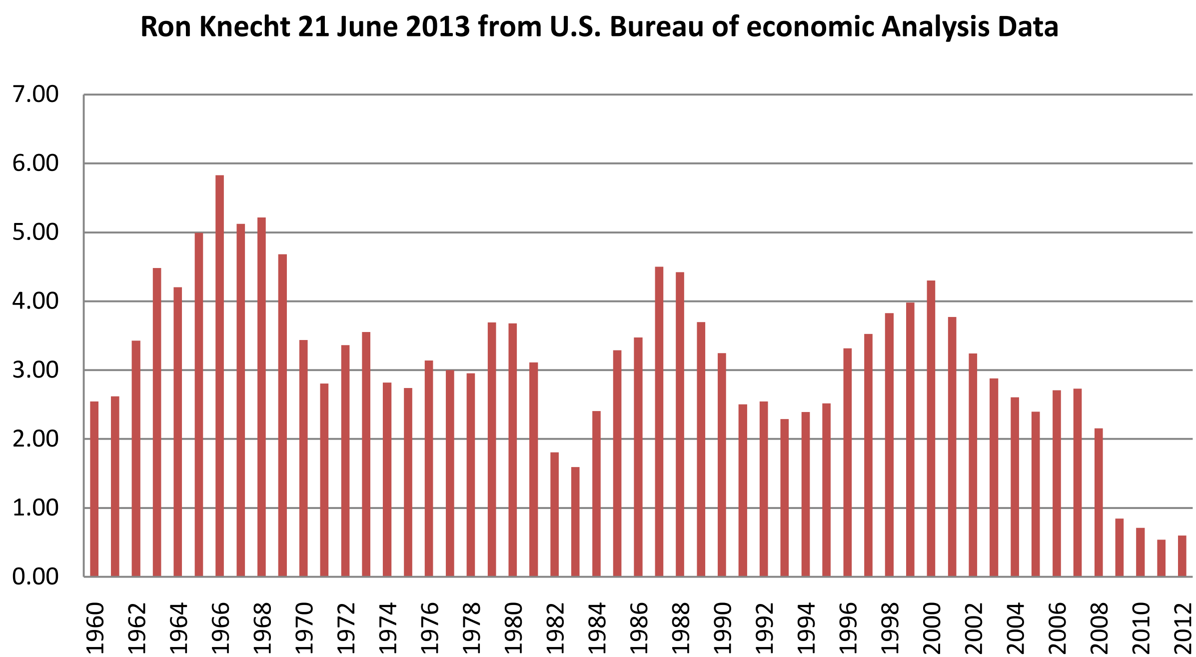
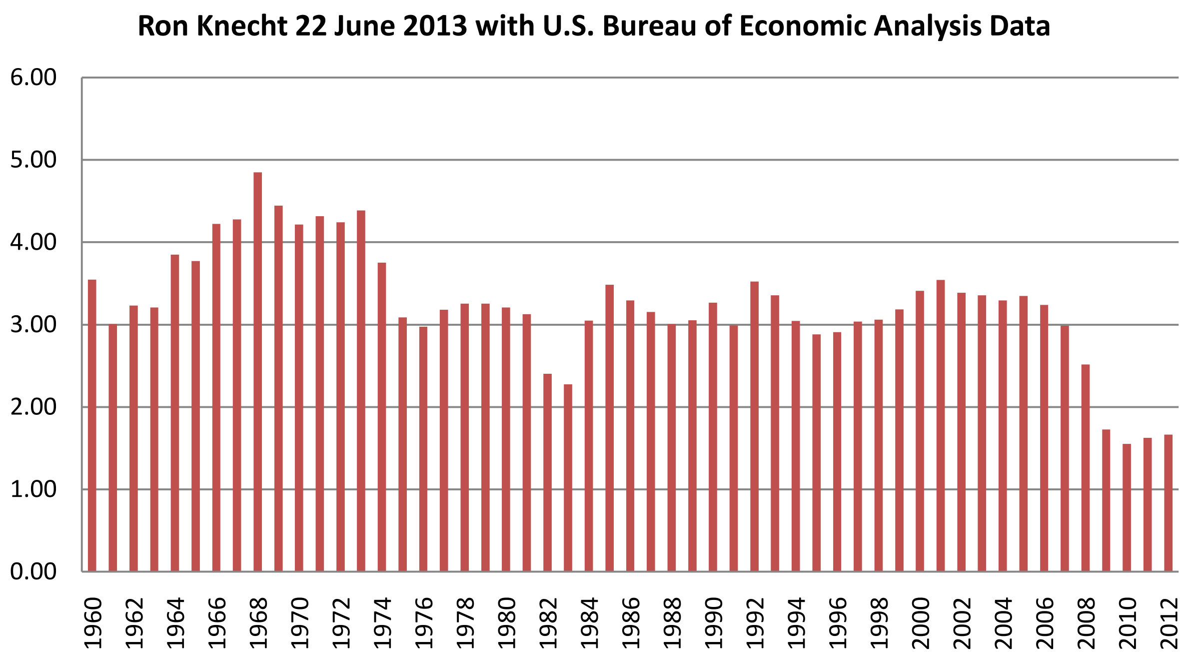
2008
2010
2012

Percent Annual Change in Real U.S. GDP
Using Five-Year Trailing-Average Real GDP



Percent Annual Change in Real U.S. GDP Using Ten-Year Trailing-Average GDP

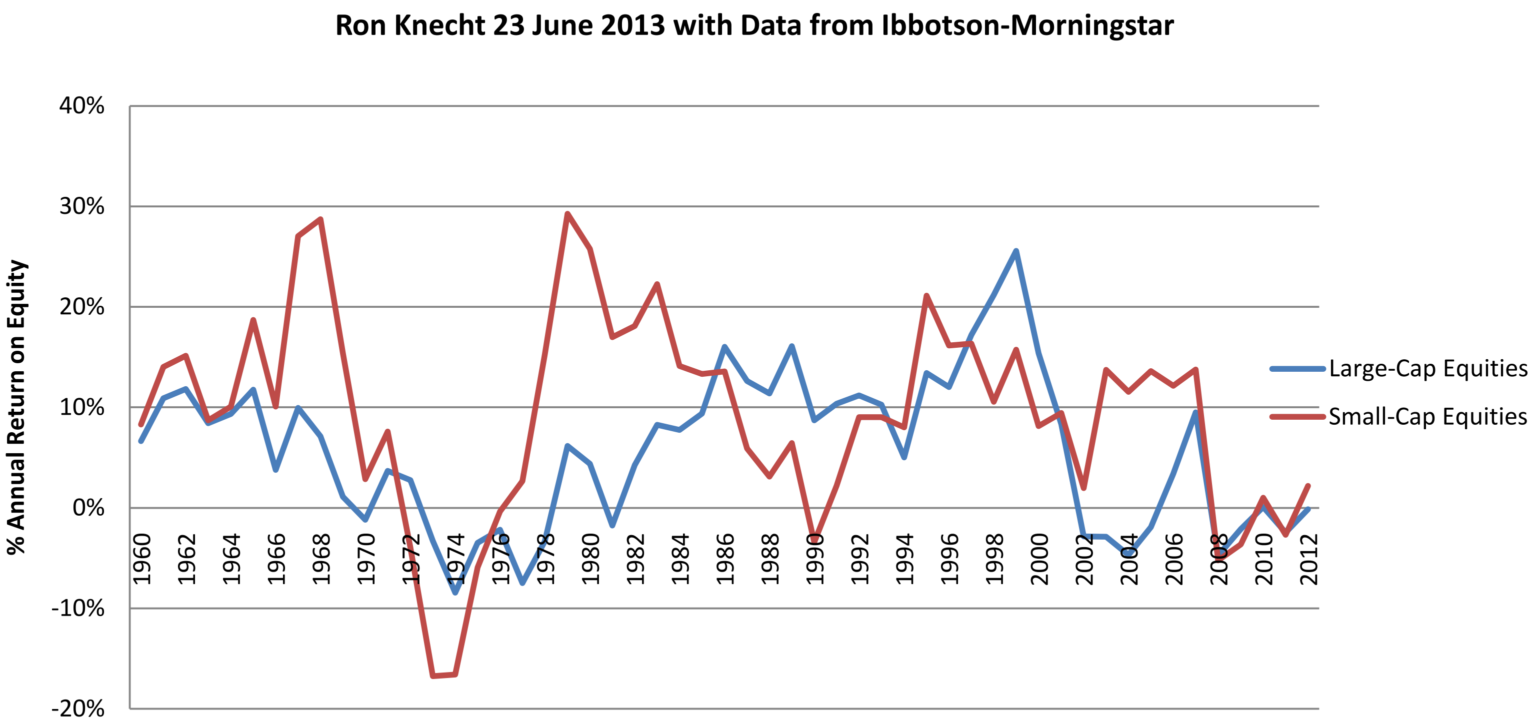


Changes Over Time in U.S. Investment Returns

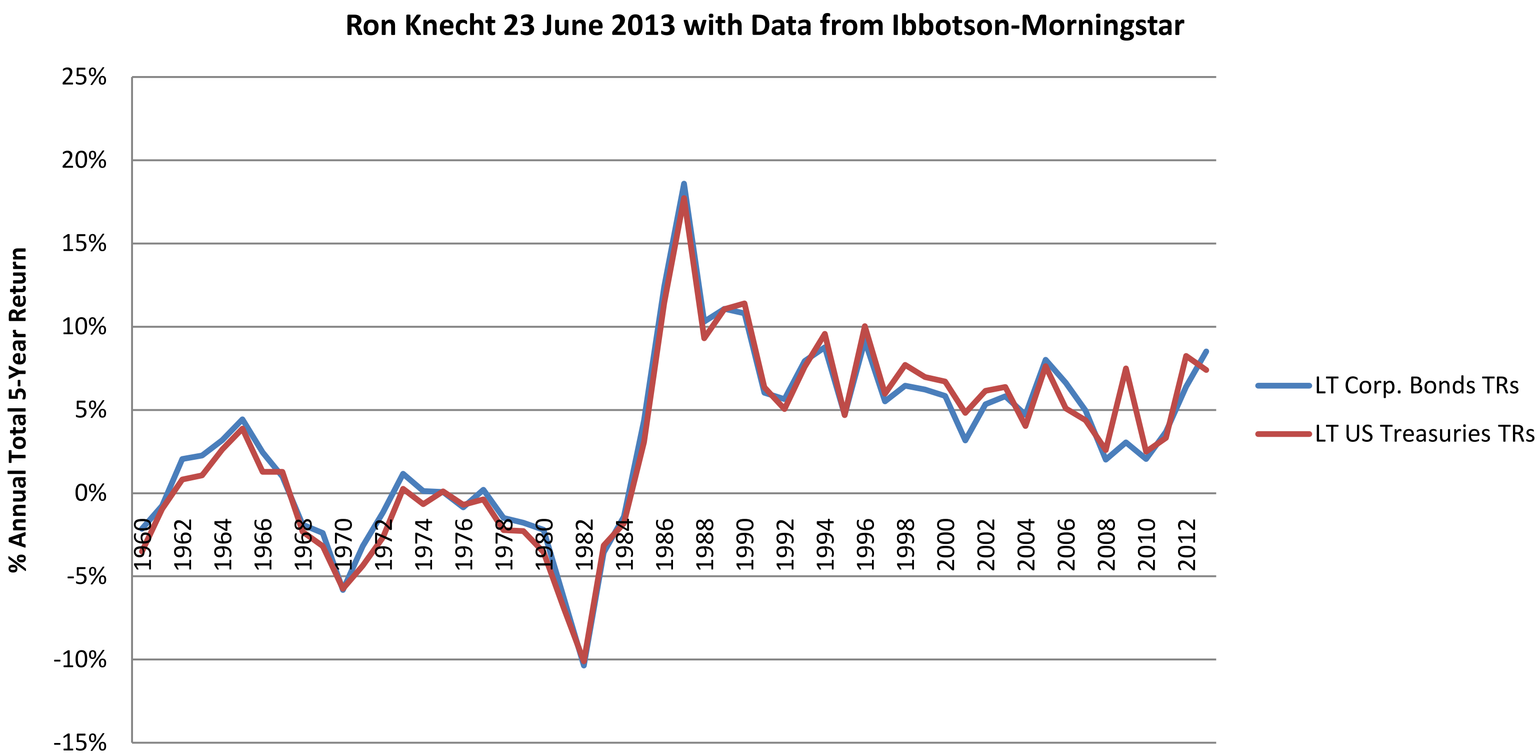
- Even five-year rolling-averages of equity returns, large & small, are very volatile (annual returns are so volatile it's hard to see patterns) – but patterns of secular trends can be discerned.

- Annual total returns on debt are also volatile, but five-year rolling-average returns chart shows clear trends: low and declining returns before the early 1980s, and very high and slightly declining returns since then.

Five-Year Trailing-Average Real Returns for U.S. Large-Capitalization & Small-Capitalization Equities, 1960-2012



Five-Year Trailing-Average Real Total Returns for Long-Term Corporate & Long-Term U.S. Government Bonds

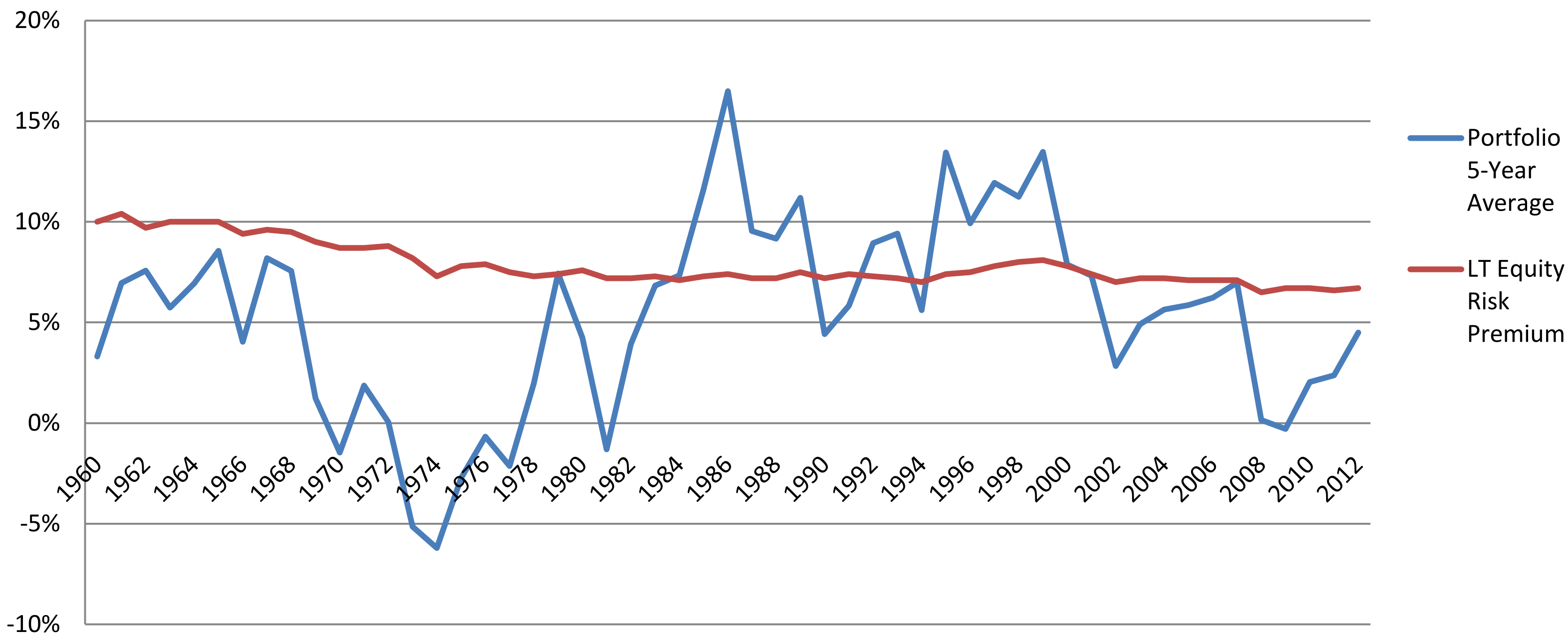


Long-Term U.S. Investment Overall Trends, 1960-2012

- Returns on 50/50 equity/debt portfolio:
  - Normalcy of 60s (good policy and demographics)
  - Inflation & low productivity of 70s (Boomers enter labor markets; loose monetary policy)
  - Recovery and twin booms of 80s/90s (policy reforms and maturing Boomers effect)
  - Stagnation, then continuing Great Recession due to numerous pyramiding policy mistakes
- Equity risk premium (using historic data) has moderated continuously -- Due to inflation history and ever more efficient markets?

U.S. Investment Returns, 1960-2012: 5-Year Average Real Returns on 25/25/25/25 Portfolio vs. Long-Term Equity Risk Premium

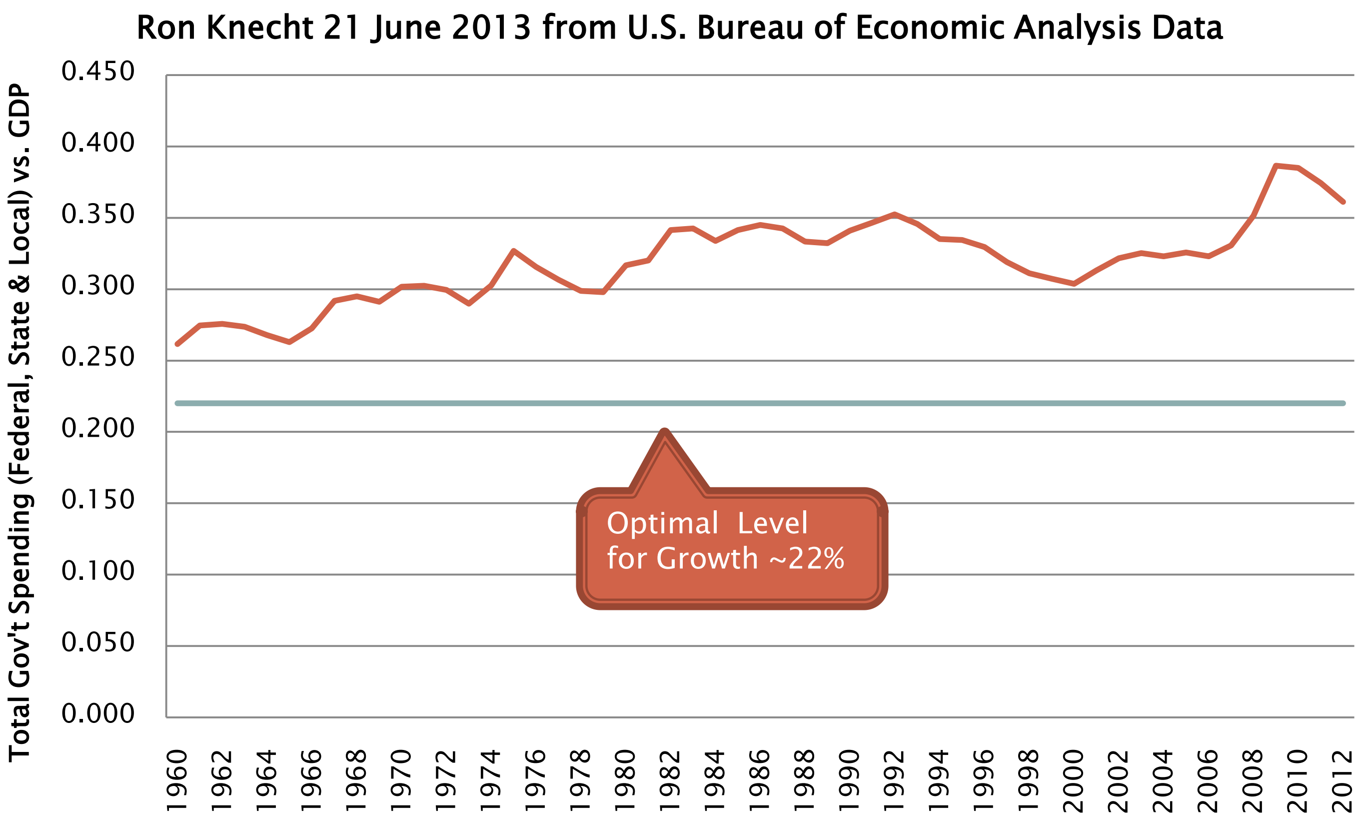
Ron Knecht 23 June 2013 with Data from Ibbotson/Morningstar -- Portfolio Consists of 25% Large Equities; 25% Small Equities; 25% Cor



Fiscal Policy Problems: It's Mainly the Spending, Sir!

- Fiscal policy, mainly excess public spending, is a long-term and growing problem.
- Extensive empirical research suggests public-spending fraction of ~22% of GDP maximizes economic growth; even most aggressive economists say only 25%–30%; some say less than 22%. (It was 8% in early 1900s.)
- Recent 35%–39% levels are unprecedented, not supported by any growth research, and are a reprise of the mistakes that caused Eurosclerosis.
- Due to lag effect on GDP growth, the damage from the excess public spending of the last five years is only beginning to show, and it will be long-lasting.
- Federal government likely bigger source of the problem, but states and localities are doing their share, too.

U.S. Government Spending vs. GDP, 1960-2012
Includes Federal and State/Local Total Net Spending

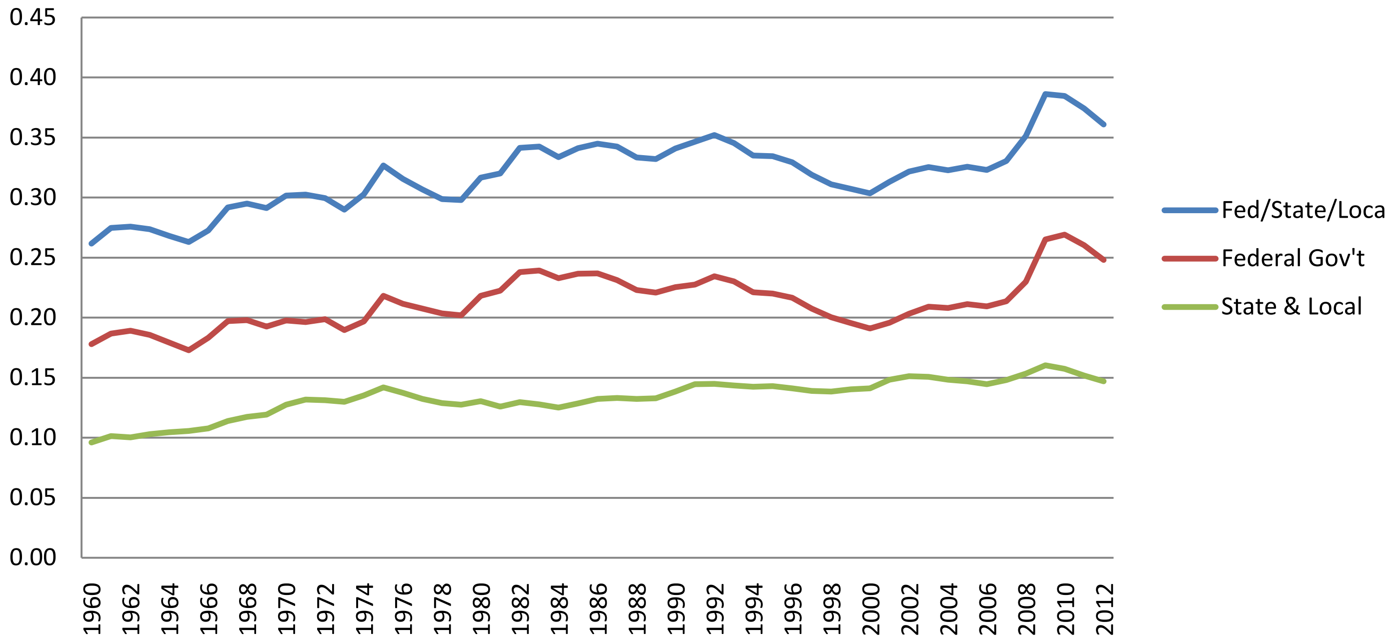


A Brief History of U.S. Fiscal Mistakes of Last Half-Century

- Continuous increase of excess spending in 1960s & 1970s
- Reagan reforms only stopped spending growth (didn't actually cut it), but made taxes more growth friendly and thus (helped by monetary & regulatory reform) they re-ignited growth – which, after recession, continued through 1990s.
- Return to excess spending in 2000s, with huge increases in 2008 continuing now
- State & local government spending slowed by Prop's 13 & 2½, but then it resumed; it has been restrained recently by Great Recession.

U.S. Government Spending vs. GDP, 1960-2012
Federal, State/Local and Total Components

Ron Knecht 22 June 2013 with Data from U.S. Bureau of Economic Analysis



Crash/Recession Shrank Federal Revenues – Federal Policy (“Stimulus”) Caused Spending to Explode (G.W.Bush & Obama)

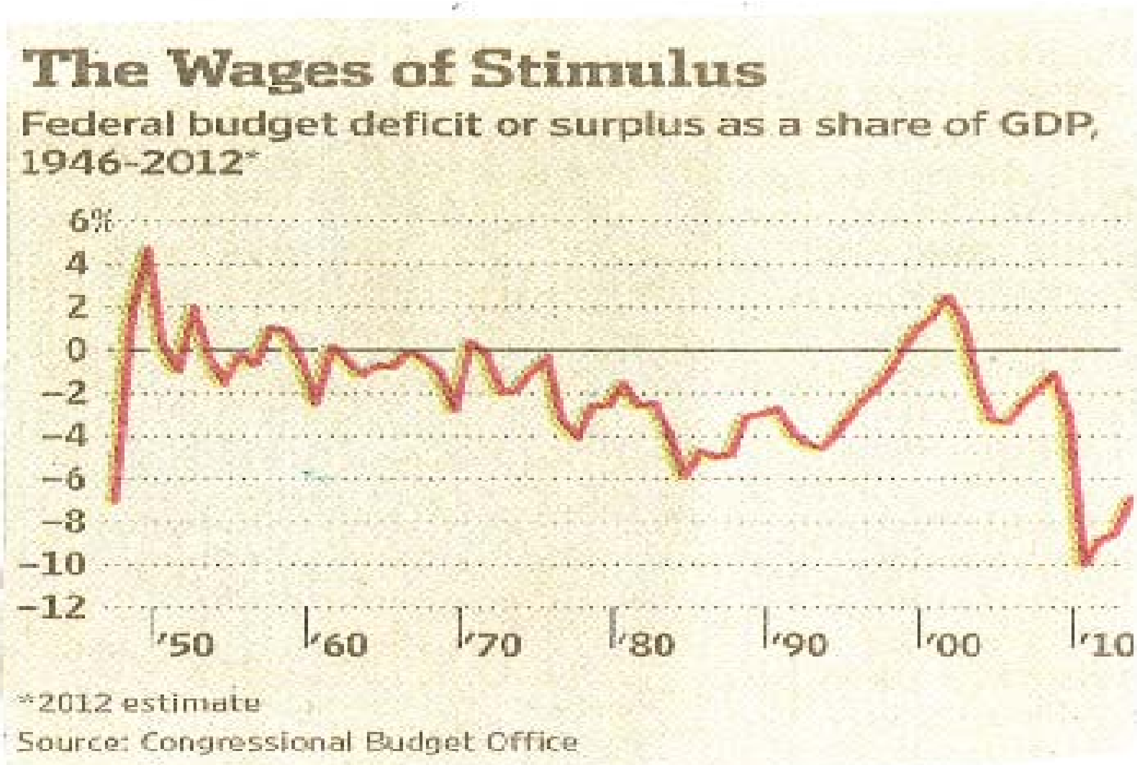
The Obama Deficit Blowout

Federal tax receipts, spending and deficits, fiscal years 2007-2011, billions of dollars

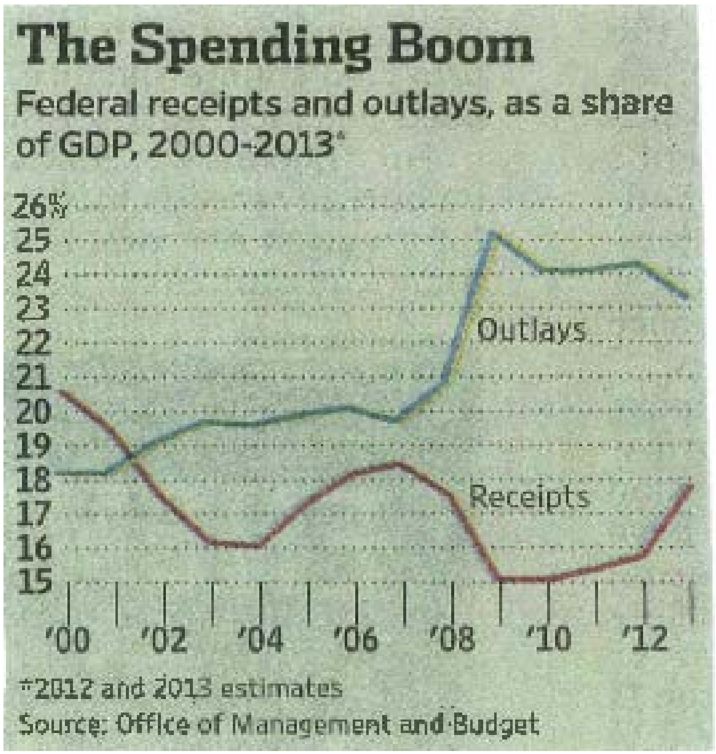
	Receipts	Outlays	Deficit	Deficit as share of GDP
2007	$2,568	$2,729	$161	1.2%
2008	2,524	2,983	459	3.2
2009	2,104	3,520	1,416	10
2010	2,162	3,456	1,294	8.9
2011	2,303	3,600	1,298	8.6

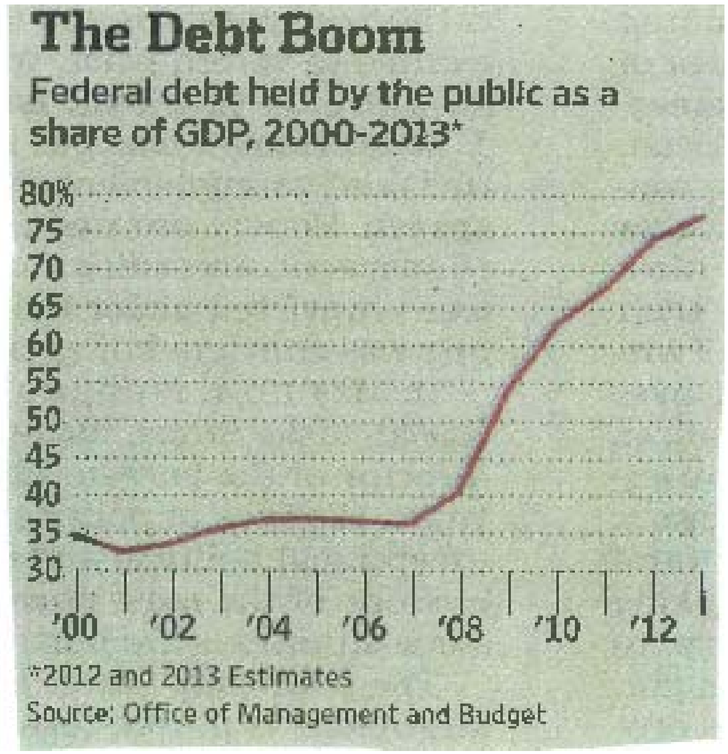
Source: Congressional Budget Office

Deficits in FY2009 – FY13 Are Largest Since World War II (G.W.Bush & Obama)



Federal Spending Explosion and Revenue Weakness Caused Debt to Mushroom; Even If Revenues Recover, Spending-driven Debt Continues to Grow Rapidly Versus GDP

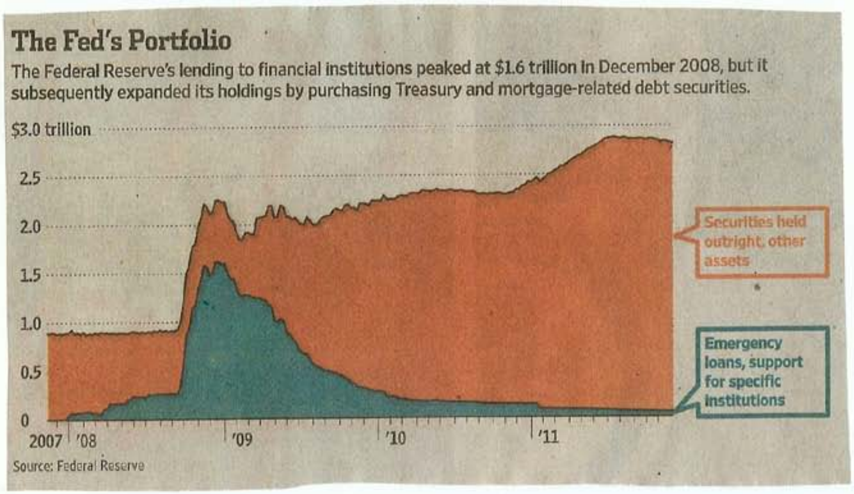




Monetary & Credit Policy Issues of the Last 50 Years

- Inflationary 1960s & 1970s (various regimes)
- Volcker & Co. broke the back of inflation & inflationary expectations
- Greenspan & Co.: warned of enthusiasm, then fostered it with low interest rates that helped inflate housing and other bubbles
- Bernanke & Co.: Unprecedented low rates, including multiple QEs, the twist & MBSs, etc. – enabling gross fiscal excess & spawning more bubbles (debt, gold, risk, equities, etc.)

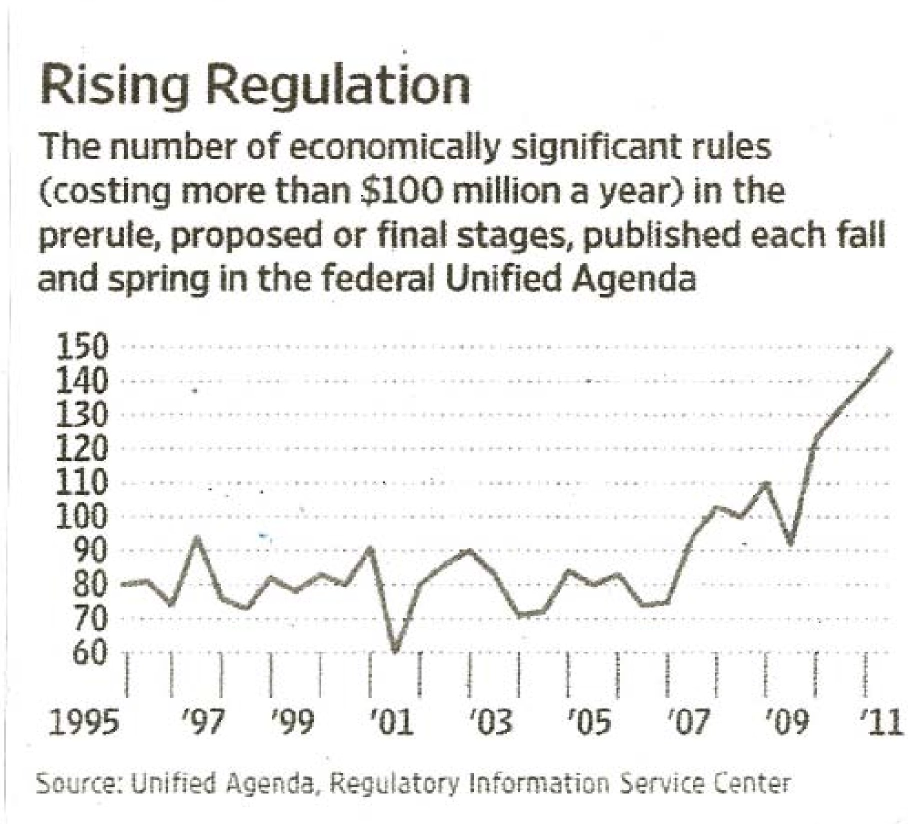
The Fed's Monetary Policy Response to 2008 Crash & Great Recession (QE)



No Deregulation; Instead, Accelerating Regulation – Especially Under Obama

- Clinton: 56 "economically significant" ($100M/year) regulations – Bush: 62 – Obama 149 as of early 2012
- Thousands more of federal (and state) regulations below $100M/year threshold
- Government agencies exaggerate regulatory benefits and understate costs.
- Compliance costs likely exceeded by costs of slower economic growth (lower employment; reduced consumer welfare).
- Obama Administration unprecedented regulatory excess: health care / insurance; labor markets; environment; energy; housing; financial services; education & student loans; public health & safety; telecomm; transportation; anti-trust; etc. – WESTCAS members know effects from experience

No Deregulation; Instead, Accelerating Regulation – Especially Under Obama



Regulatory Policy Problems – Recent Metastasis & Decline

- Doing Business reports of World Bank & International Finance Corp.: Sums days needed to start a business, get construction permit, register property, pay taxes, get export or import license & enforce a contract – U.S. red tape time has shown 6th worst increase over last six years (up 18% to 433 days)
- Economic Freedom Report (Fraser Institute – legal system & property rights): U.S. ranking 9.23 (of 10) in 2000 (9th); 7.12 in 2010 (33rd of 144 countries)
- World Economic Forum: Global Competitiveness Index US rank: 1 ('08–'09); 7 (of 144 countries in '12–'13)
- Reasons for declines: legislation (e.g., Dodd-Frank & PPACA), litigation & regulation (lawyers, lobbyists, HR)

Regulatory & Legal Problems: Big Picture, Long-term Effect

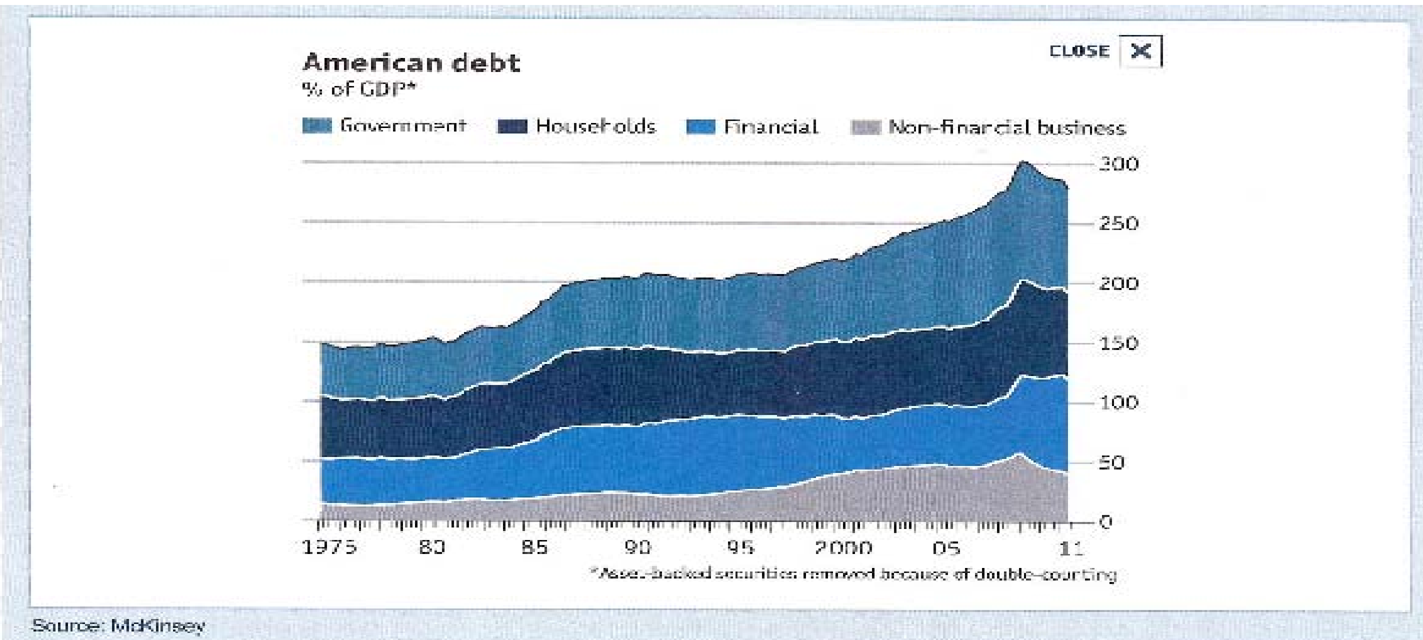
- World Justice Project: U.S. ranking (of 97):
  - 17th for extent to which law limits government
  - 18th for absence of corruption
  - 19th for regulatory enforcement
  - 22nd for access to civil justice
  - 25th for fundamental rights
  - 26th effectiveness of criminal justice
  - Hong Kong beats U.S.; at least we beat Botswana
- Each measure is imperfect, but all indicate serious decline in U.S. competitiveness, institutions, policies & practices – as Mancur Olson (father of regulatory capture) posited

Effect of U.S. Policy Problems: Fiscal, Monetary/Credit Allocation, Regulatory

- **First Fundamental Perspective**: Political & economic institutions, policies and practices – especially public fiscal (taxing & spending) policies, monetary & credit policies and regulation & property rights – are the **Primary Determinants of Economic Growth**
- The adverse long-term trends the U.S. has long experienced in all these areas, severely compounded recently, virtually assures very depressed economic growth near-term, especially intermediate-term and even long-term; turning an oil tanker is easy compared to correcting this full range of primary policies and mitigating their mutually reinforcing negative effects. (Further indicators in next two slides: declining employment/work fore; rising debt.)

Employment & Work Force Have Shrunk: End of Growth in Women's Participation; Exit of Men; Early Retirement; Discouraged Workers

Research Shows Public-sector Debt > 90% of GDP Suppresses Growth & Triggers Inflation; U.S. Has Long-run Growing & Now Huge Debt Problem, Public & All Private



Problems & Prospects: Education

- Cost disease still plagues K-12 & higher education – but e-Revolution and restructuring promise long-overdue breakthroughs.
- K-12 comparative student achievement results stagnant if not declining relative to other advanced countries.
- Higher education problems:
  - Time-to-degree-completion increase
  - More degrees than jobs really require?
  - Distribution of majors vs. jobs
- U.S. higher education remains standard of the world & helps U.S. cream-skim the world

Problems/Prospects: Technological Change & Business Innovation

- Few economists subscribe to notions that world has had unusually high levels of technological advancement in recent decades or that it faces significantly lower ones going forward. Technological change is ubiquitous, and it's hard to recognize important developments prospectively.
- Business innovation and disruptive change – adaptation of technical progress, ideas and insights into new business and operating paradigms – is also likely to continue. However, excess regulation and debt will crimp these processes somewhat.

Bumping Along the Bottom I: Sustained Slow Economic Growth

- Crowding out of private investment by excess public spending (and thus taxes and borrowing), plus awful tax code have already slowed economic growth in recent decades.
- The recent surge in public spending will further cut economic growth rates, especially now due to high and growing public debt.
- Public and private debt and asset bubbles fostered by unprecedented monetary and credit-allocation policies, plus inflation fly-up risks have dampened investment despite a flood of liquidity supplied by Fed.

Bumping Along the Bottom II: Sustained Slow Economic Growth

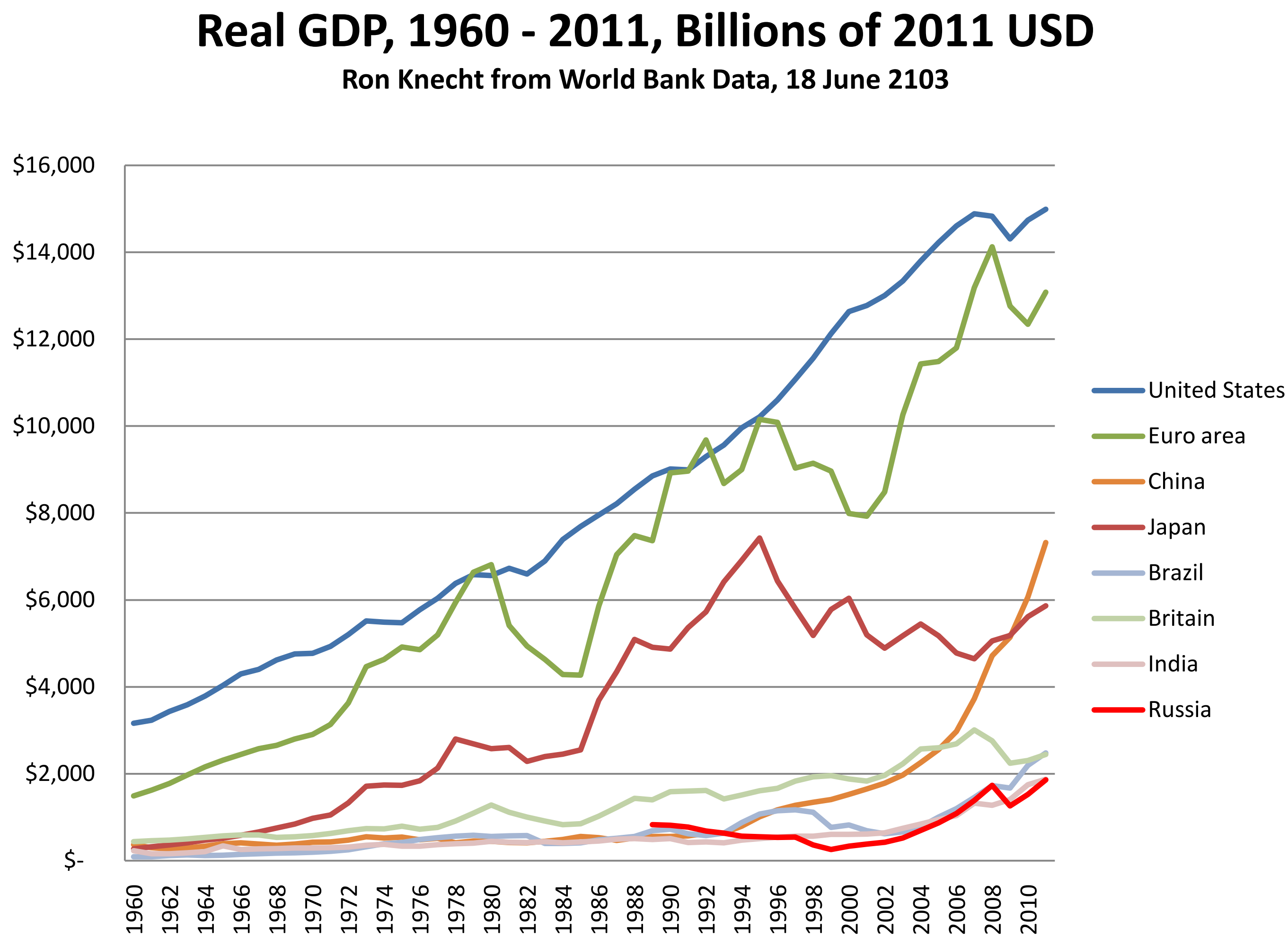
- Increasing and ever more dysfunctional regulation across the board has already significantly added to growth suppression effects of fiscal, monetary and credit policies. Recent and coming regulatory orgy already greatly increasing suppression of both investment and employment.

- Big decline in employment and labor participation since Great Recession means slower economic growth. This is the slowest recovery since WW II: unemployment still 7.6%; 2.4-million jobs down.

- Resulting slowing of productivity gains and per capita economic growth to 1% or less, plus slower rates of population growth of well below 1% make 2% sustained real economic growth quite unlikely, regardless of education, technology & innovation.

No, the Rest-of-the-World Cavalry Will Not Rescue Us – I

- Euro Zone plus GBR only entity the size of the U.S., but they have our problems and worse, and are declining.
- China has been main world growth engine via central planning and cnotrol, but Japan (China's predecessor in this regard) has stagnated and declined. China's growth is already slowing and problems are arising.
- Brazil, India, Russia and the rest already face problems (that may be increasing) trying to master sound and stable institutions, policies and practices. They are also economically just too small.
- The big success stories are all too small to really help, including east Asia, Americas, Switzerland, and former Brit colonies that get institutions, etc. right plus oil states, plus Indonesia, Turkey, Sweden, etc.


Real GDP, 1960 - 2011, Billions of 2011 USD
Ron Knecht from World Bank Data, 18 June 2103
$16,000
$14,000
$12,000
$10,000
$8,000
$6,000
$4,000
$2,000
$-
1960
1962
1964
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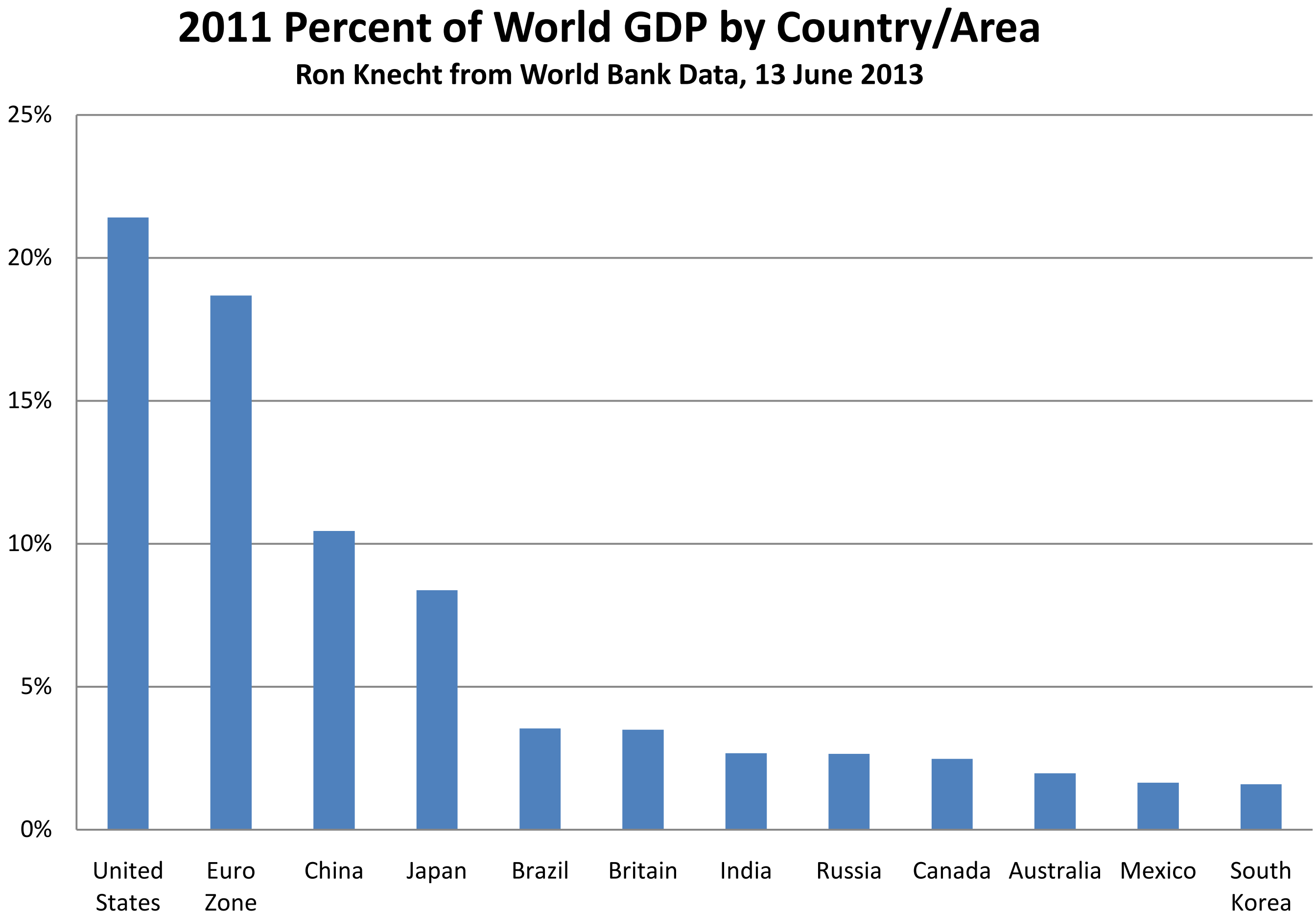
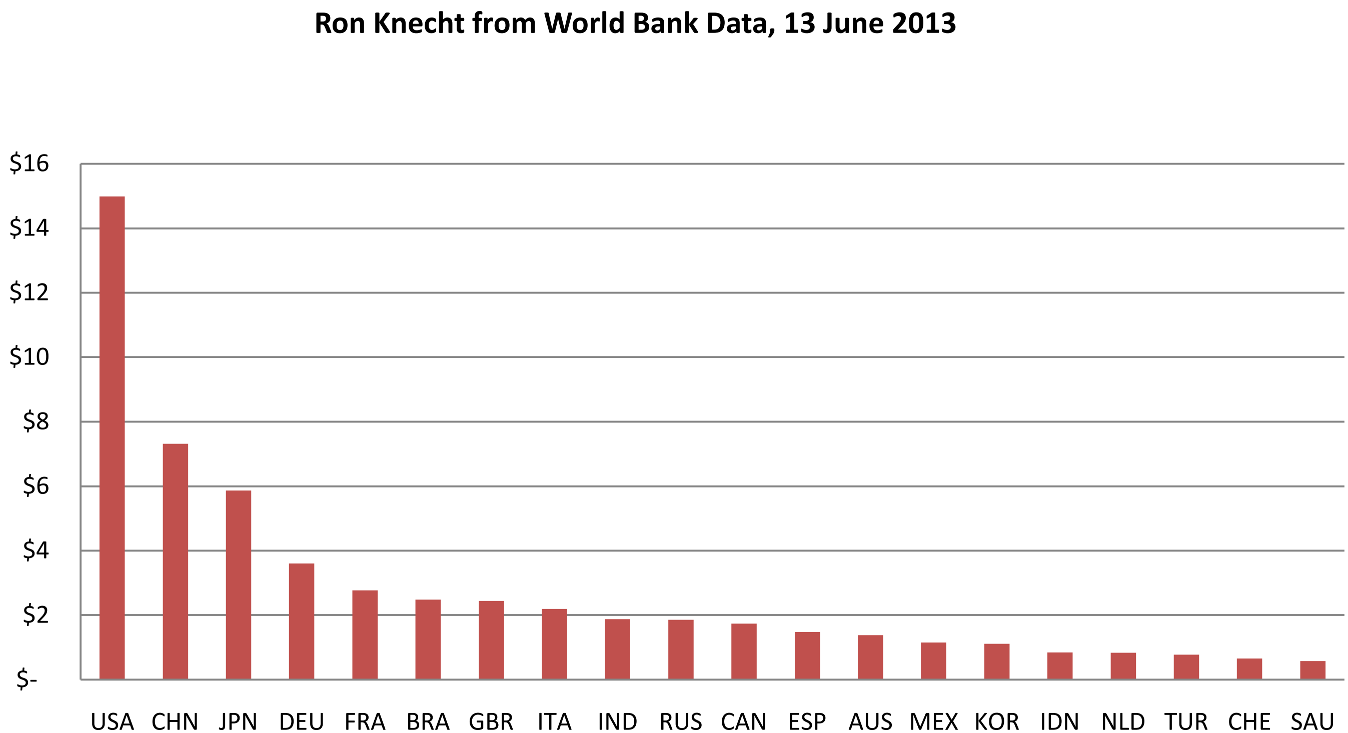
2004
2006
2008
2010
United States
Euro area
China
Japan
Brazil
Britain
India
Russia


2011 Percent of World GDP by Country/Area
Ron Knecht from World Bank Data, 13 June 2013
25%
20%
15%
10%
5%
0%
United States
Euro Zone
China
Japan
Brazil
Britain
India
Russia
Canada
Australia
Mexico
South Korea

2011 GDP by Country, Trillions of USD



2011 GDP by Region, Trillions of US Dollars

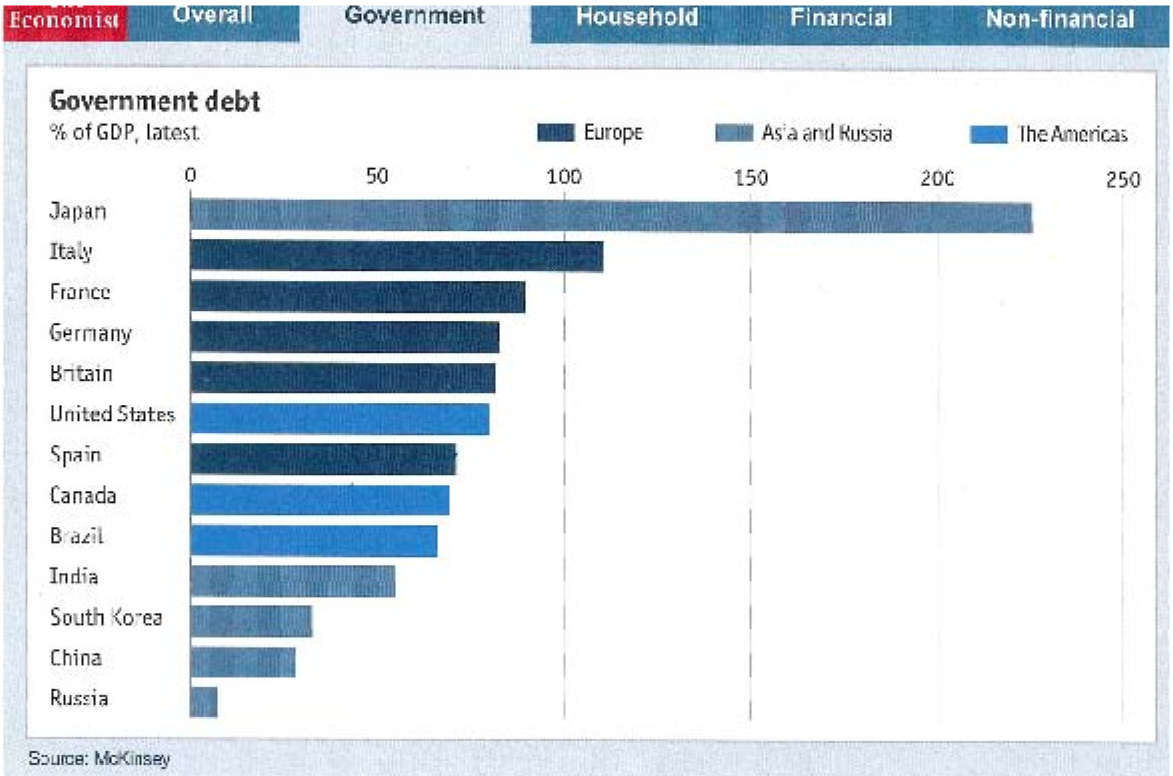
Ron Knecht from World Bank Data, 13 June 2013

Region	Abbr'n	Percent	Trillions USD
World	WLD	100%	70.0
Europe & Central Asia	ECS	32%	22.2
East Asia & Pacific	EAS	27%	18.8
North America	NAC	24%	16.7
Latin America & Caribbean	LCN	8%	5.8
Middle East & North Africa	MEA	4%	3.0
South Asia	SAS	3%	2.3
Sub-Saharan Africa	SSF	2%	1.3

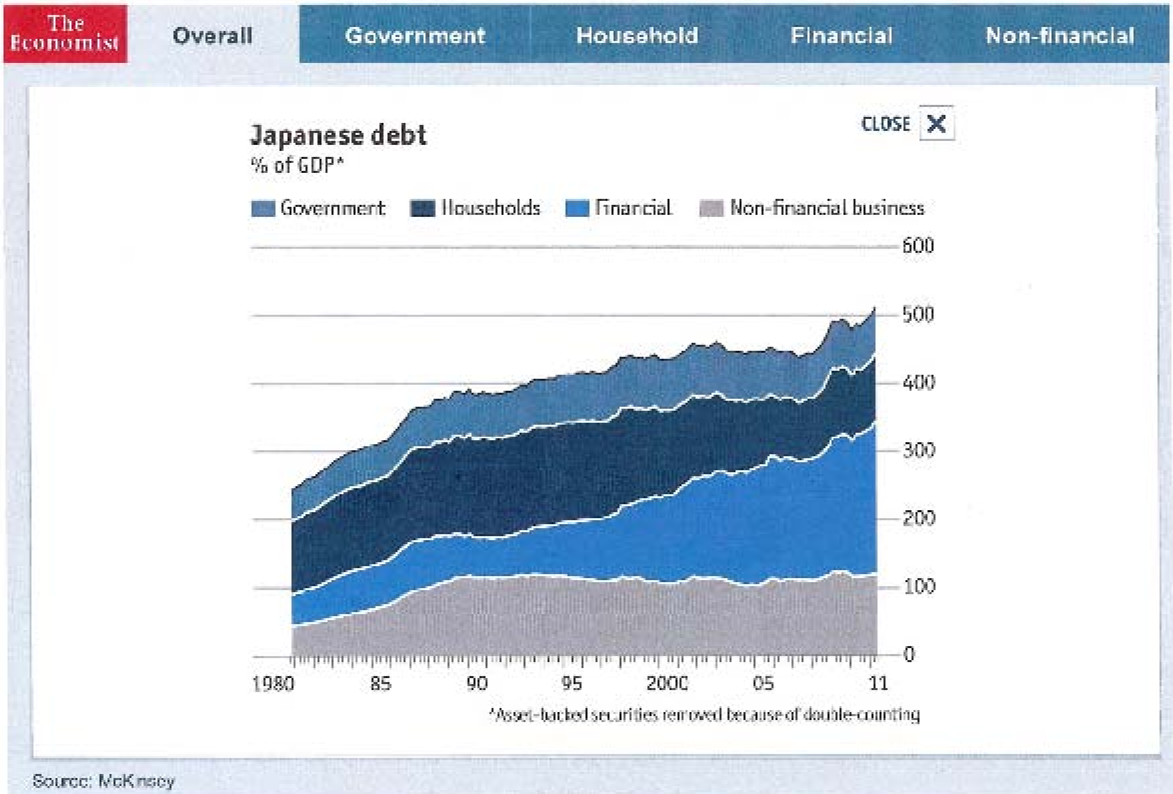
No, the Rest-of-the-World Cavalry Will Not Rescue Us – II

- The Euro Zone and Britain are again mired in recession. Italy is well into the public debt danger zone, with France, Germany, Britain and Spain getting there. Japan has by far the worst government debt problem.
- Japan and Britain have by far the worst total debt problems; behind them, France, Italy and Germany join U.S. in total debt red zone.
- China had low debt levels and ability to help, but it is now facing debt problems of shadow banks and slowing economic growth.

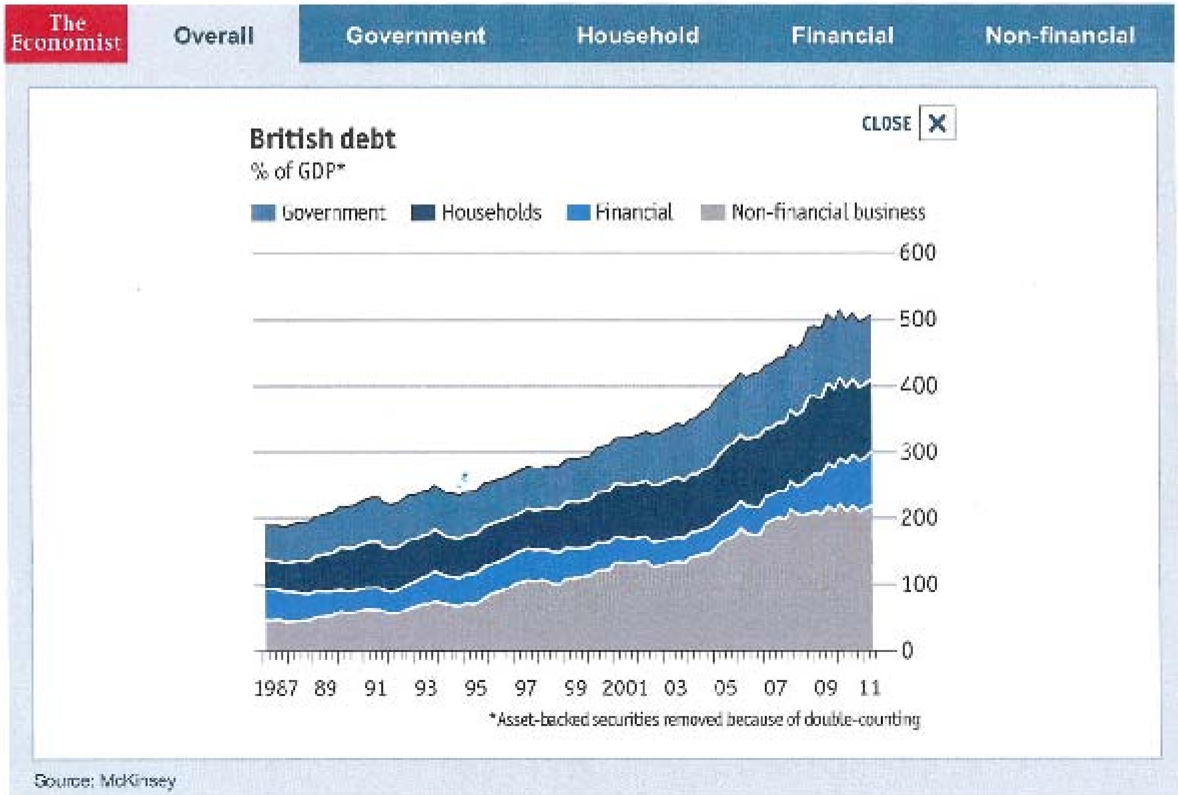
Public Debt Problem Plagues All Major Economies on an Increasing Basis



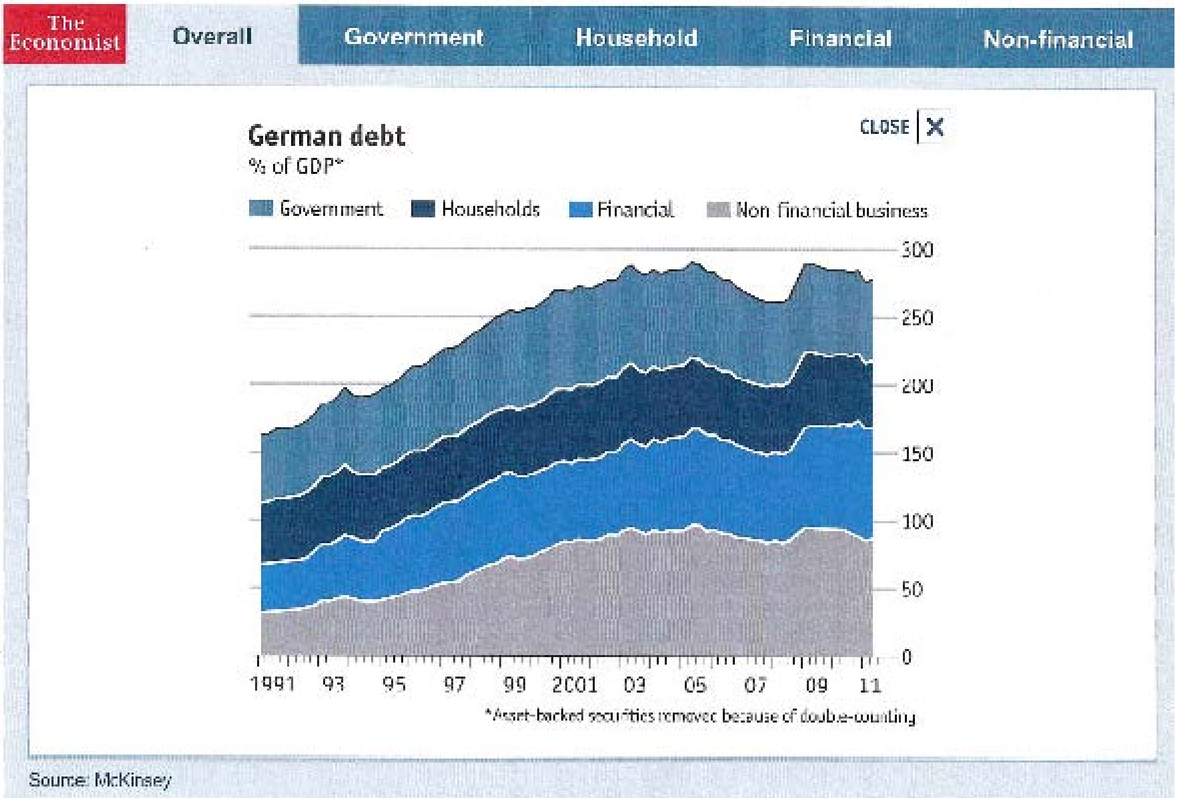
Japan Has Most Severe Debt Problems – Major Factor in Lost Two Decades



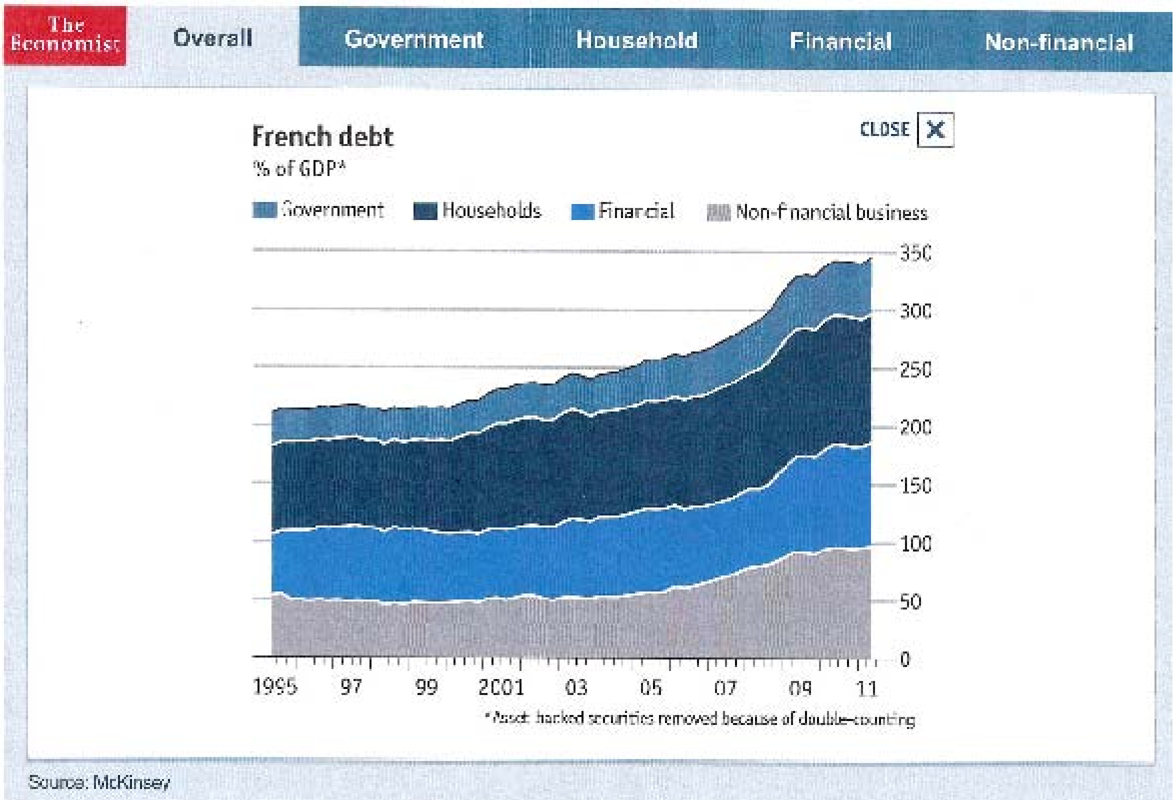
Britain Also Deep in the Debt Soup



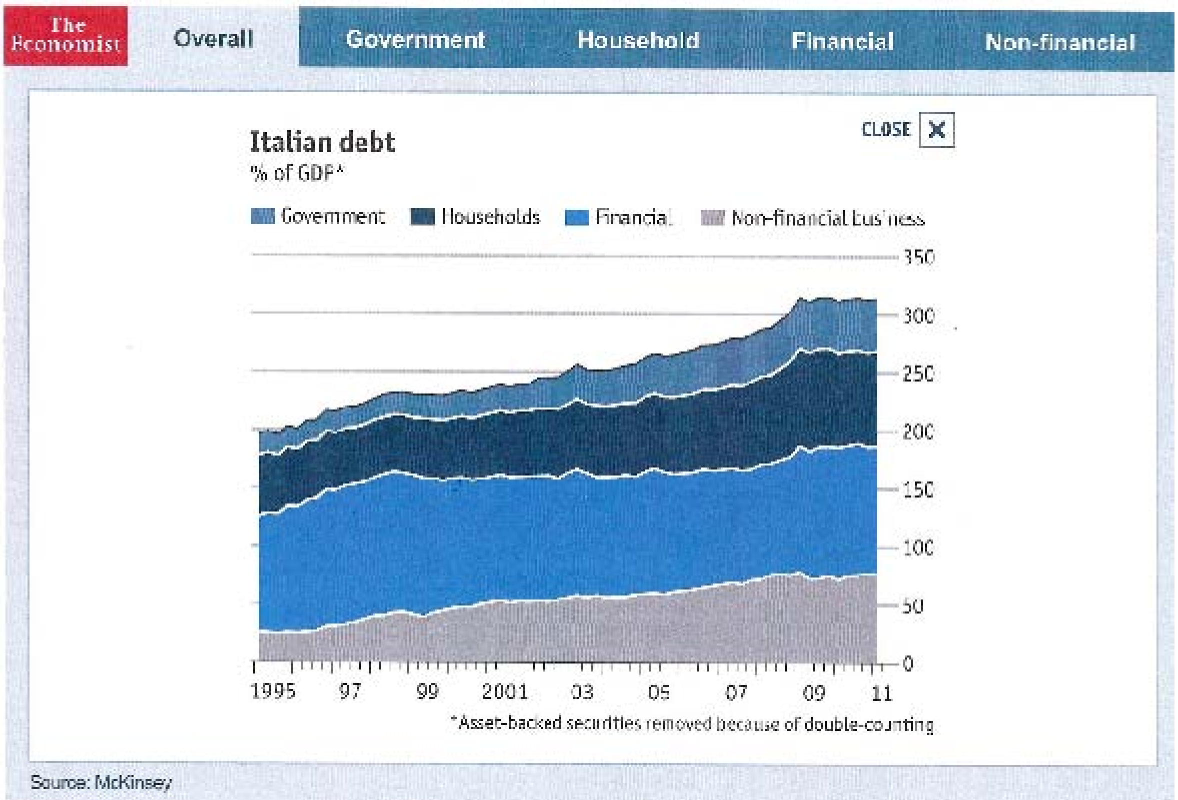
Germany Managing Debt Better, But Not Well – Similar to US



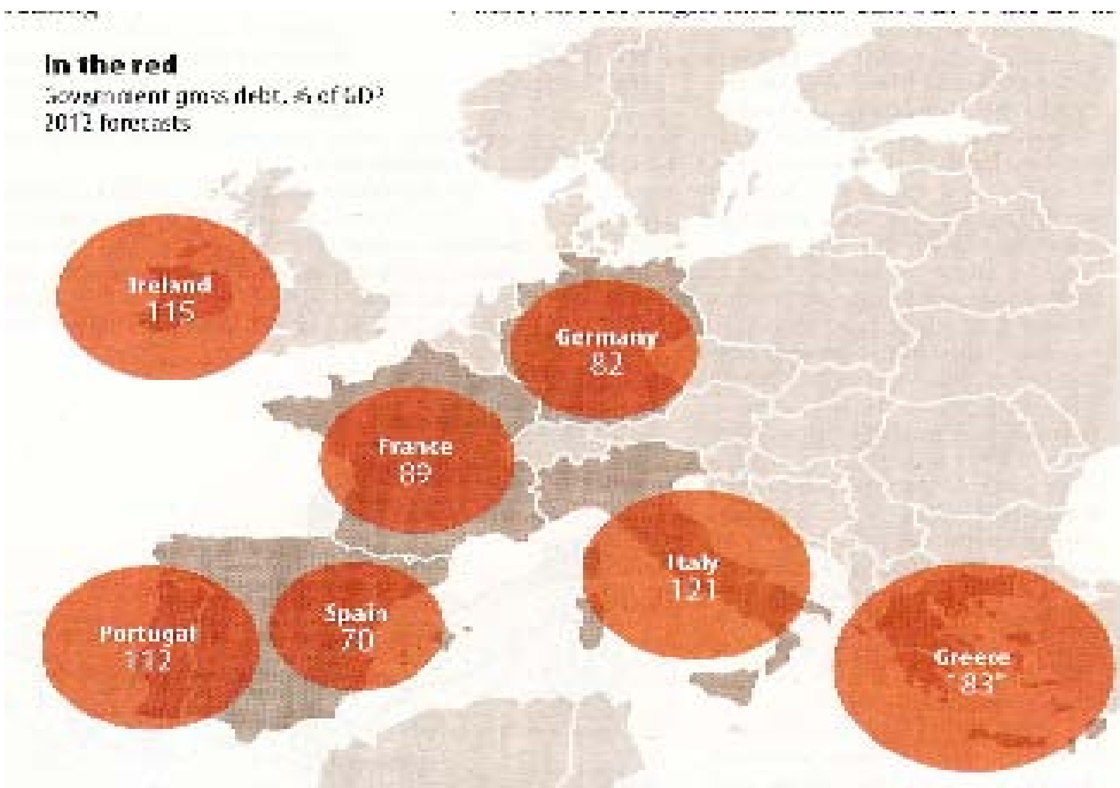
France Also Managing Debt Better Than the Worst – But Not Well



Italy's Debt Problems Are Getting Worse, Too



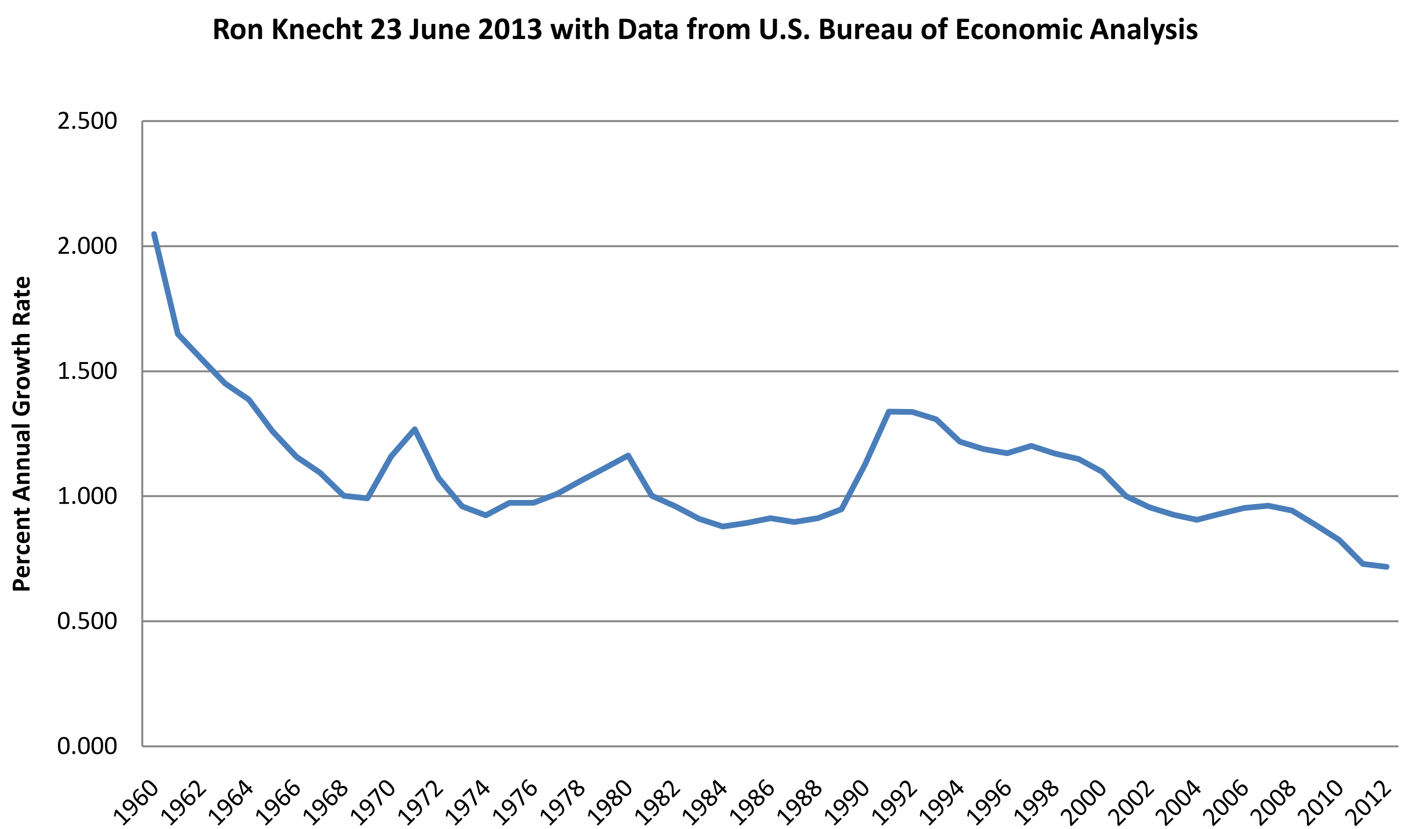
Update of European Debt Problems: All Getting Worse, Except Ireland



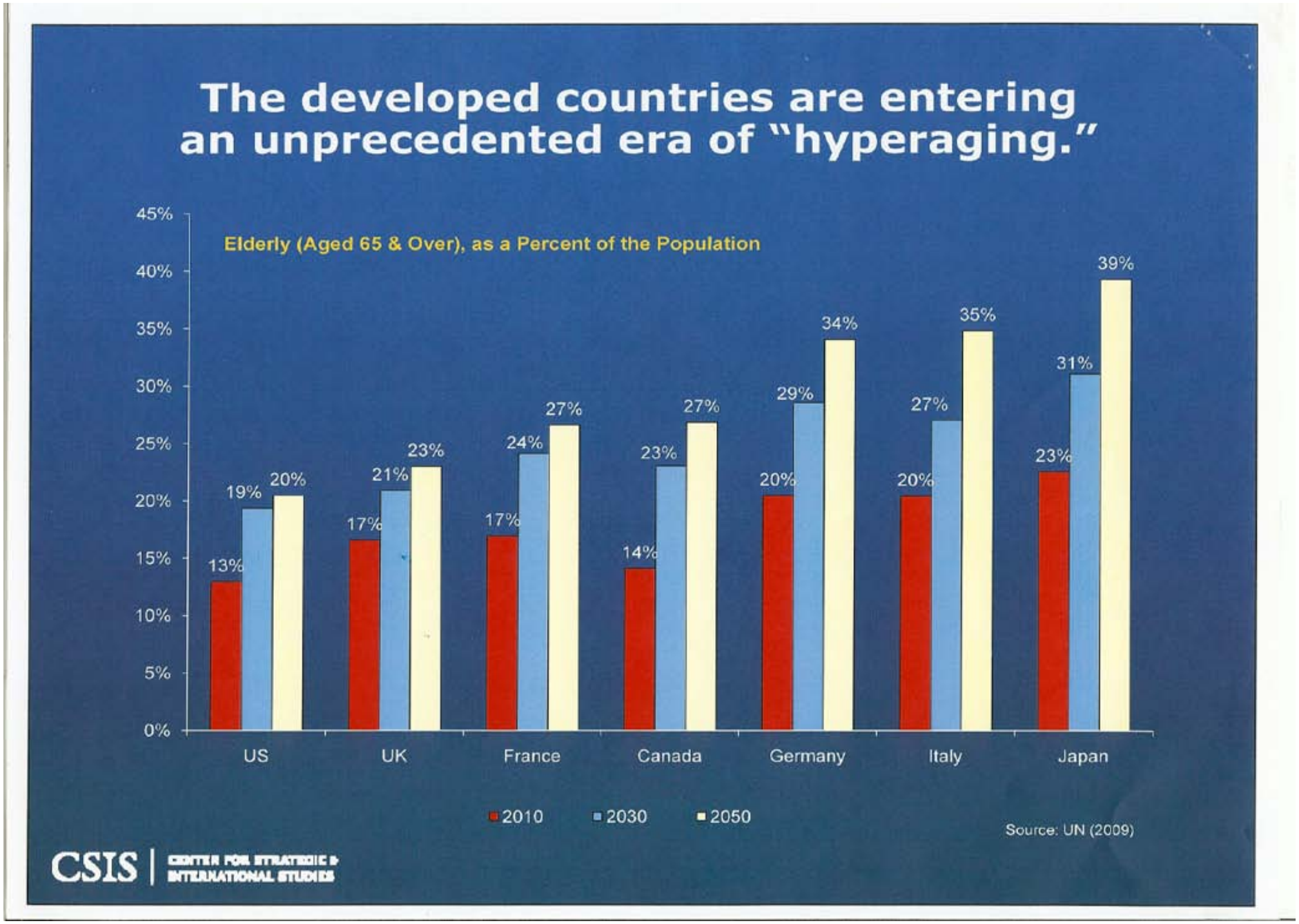
Demographic Implosions: Long-term, Things Get Even Worse – I

- U.S. population growth rate has been declining since late Baby Boom years, with rise in 1990s and accelerated decline in Great Recession – and our population will grow ever slower & it will age.
- Decline in fertility rates & increasing longevity will lead to hyper-aging of developed-country populations and stagnation or contraction in population totals (Japan, Germany & Italy).
- Falling support (payor-to-payee) ratios create huge fiscal burdens for young & employed and jeopardize PAYGO retirement & health-insurance systems.

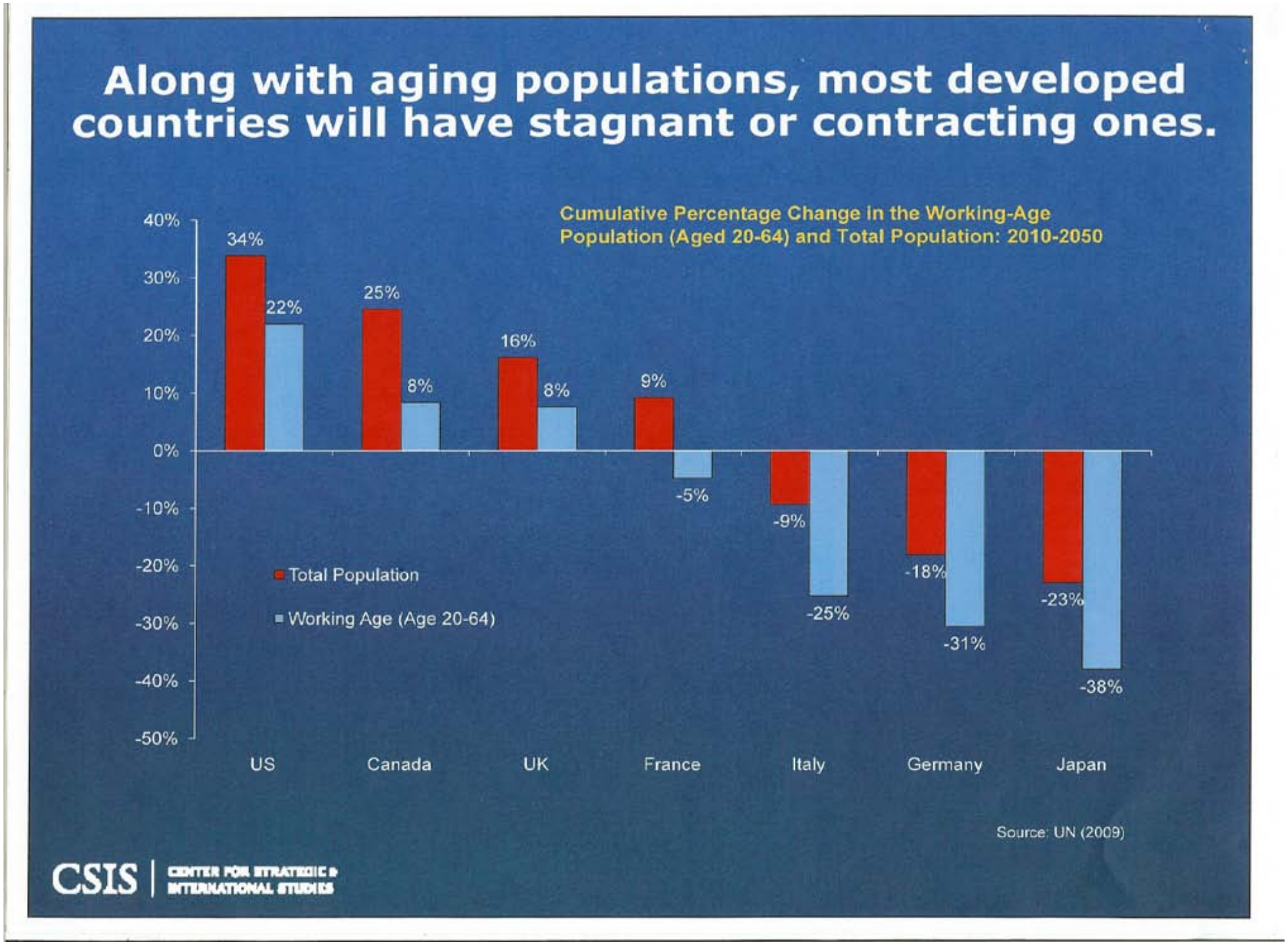
Percentage Annual Change in U.S. Population, 1960-2012



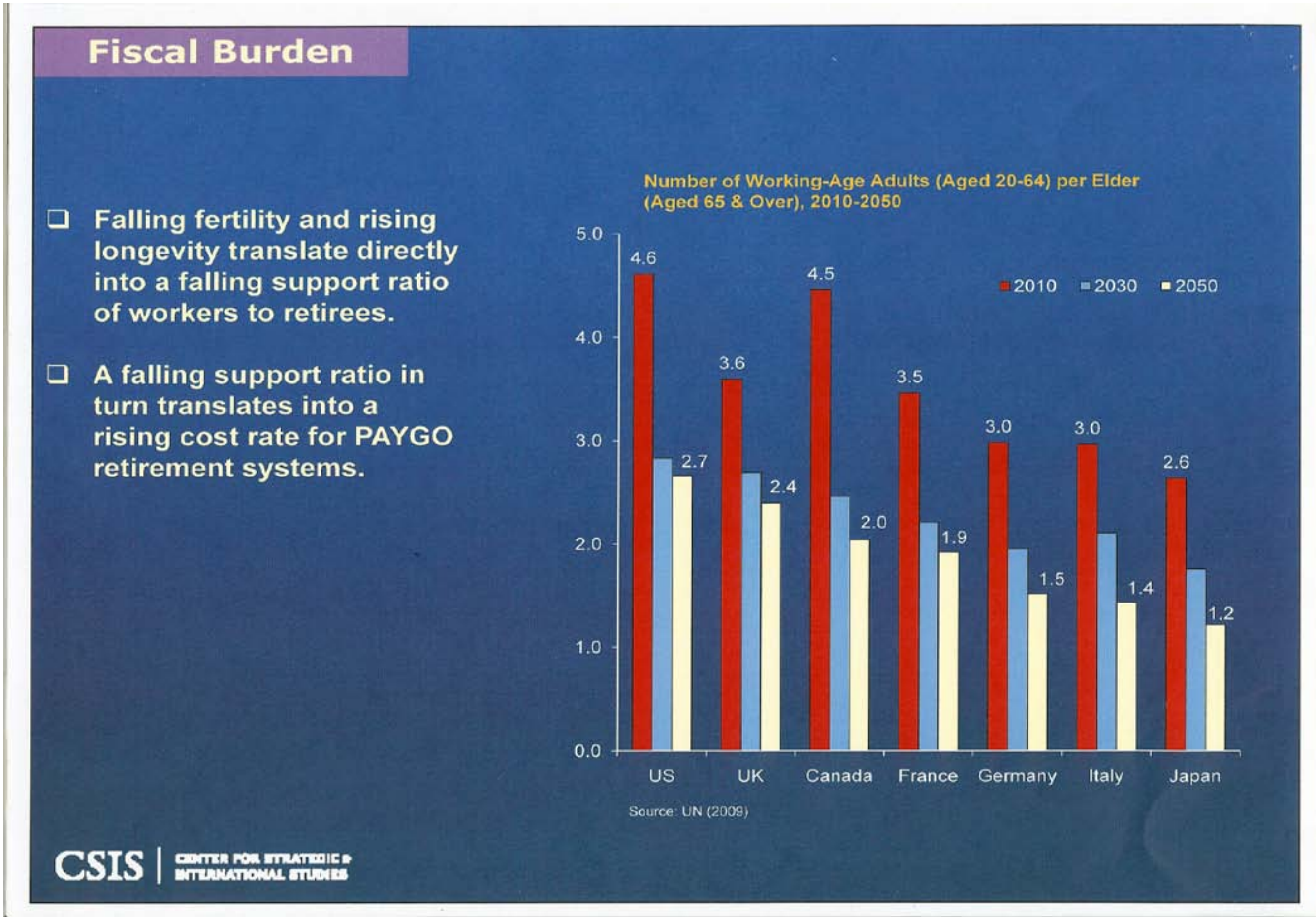
The Demographic Outlook for Developed Countries Makes Long-term Outlook Worse



Declining Populations in Europe Will Make Economic Stagnation Even Worse



Dependent to Producer Ratios Getting Very Bad by 2030 – Real Sustainability Problem



Demographic Implosions: Long-term, Things Get Even Worse – II

- U.S. may be the cleanest dirty shirt in the demographic/economic dirty clothes pile, but it will stagnate economically and face serious pension and health-insurance support problems without greatly increased immigration. Paul Ehrlich was profoundly wrong.
- U.S. needs secure borders, but just as much we need greatly increased legal immigration from bottom to top of economic & skills range in order to prosper and keep entitlements sustainable.
- Illegal immigration has slowed and even reversed already, due to Great Recession and economic & social progress in Mexico. Melting pot still works: new immigrants becoming Americanized.

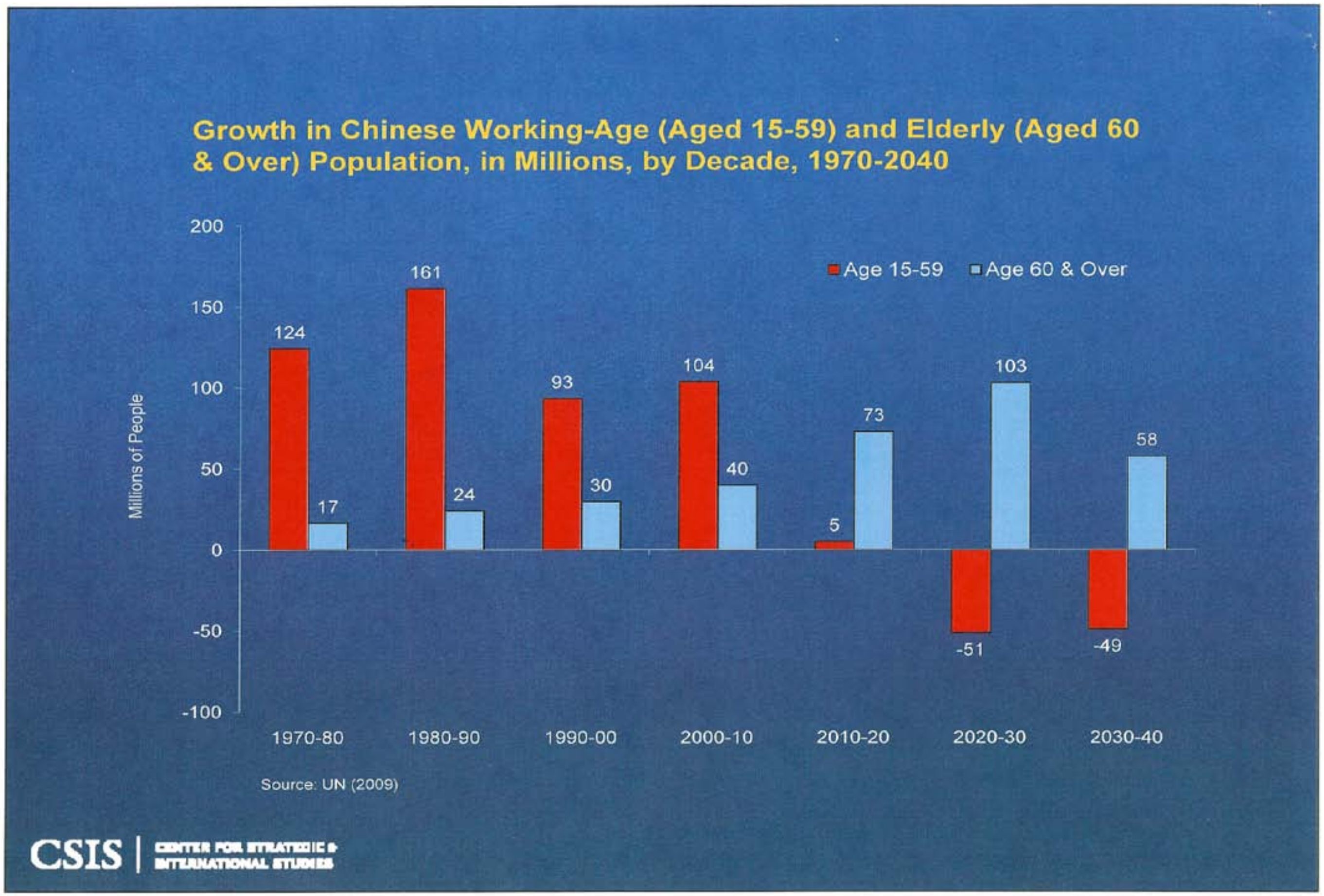
Demographic Implosions: Long-term, Things Get Even Worse – III

- Declining fertility rates affect even developing and under-developed nations, because they seem to be driven by women's education levels more than average per capita income levels.
- Increasing longevity in second and third worlds is due much to globalization.
- The two trends mean that second & third worlds also face declining population growth rates, aging and slowing economic growth due to slower population growth and productivity gains.
- These countries mostly do not yet have extensive entitlements systems, so they may escape problems arising from them.

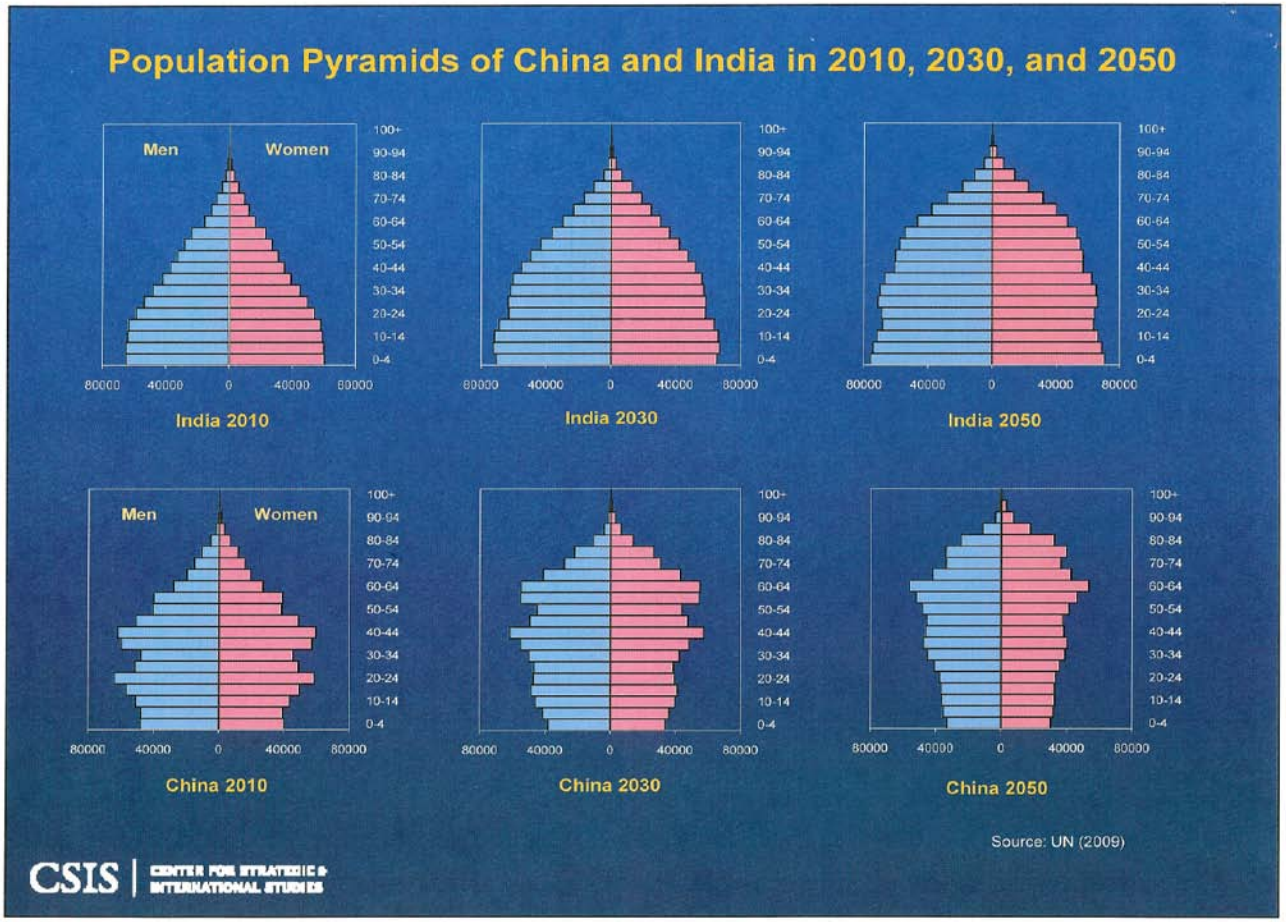
Demographic Implosions: Long-term, Things Get Even Worse – IV

- The only second and third world countries with populations big enough to make large impacts (BRICs and Indonesia) either face some of the most severe population implosions or have long histories of failing to capitalize on economic opportunity.
- China's One Child Policy promises the biggest demographic and economic challenge on the horizon: severe aging and population decline. Russia's alcoholism problem and low fertility rates already have its population declining.
- India, Brazil and Indonesia have long histories of never missing a chance to miss a chance. Needed reforms of institutions, policies and practices never really attempted.

Long-term, China Has Worst Demographic Outlook of All Due to "One Child" Policy



India's Demographics Look Good, China's Demographics Look Awful



Expected Investment Returns Vary Directly with Expected Economic Growth

- Riskless rates (Treasury yields) are the starting point for all beta and other risk-premium (RP) models; so returns vary directly with these rates.
- All RP models use a market risk premium, which varies directly with expected long-term economic growth; thus, so do expected returns.
- Discounted cash flow models use the expected long-term economic growth rate as their end-stage discount rate; so, returns vary directly with expected long-term economic growth.
- So, for all return models, expected returns vary directly with expected long-term economic growth. With economic growth slowing, expected investment returns also decline.

Inflation Prospects & Effects

- **Prospects**: Inflation is a beneficial strategy for debtors, especially sovereigns and those printing the world reserve currency. It's also a likely accident from poor fiscal, monetary, credit and regulatory policies and interventions.
- **Effects**: Inflation drives up nominal costs of capital and nominal economic growth rates, but not real ones. Lag effects mean inflation penalizes investors, savers, businesses and consumers. In a debt bubble, a sudden inflation fly-up can lead to sustained (and even spiraling) inflation.

Four Challenges for WESTCAS Members

- 1) Know how to manage in sustained slow economic growth (>2% per year in real terms);and thus slow revenues growth. (One hopes for faster growth than pre-Industrial Revolution, but …)
- 2) Your planning for pension and health-care funding will have to be much more conservative; assume a real return on public-sector funds or 4% – 5% or less, not higher figures used in past.
- 3) You may well face sudden, major & sustained (unexpected) inflation fly-ups.
- 4) Count on an unbearable federal regulatory burden that will drive your costs through the ceiling and create extensive uncertainty.

Some Rays of Hope?

- 1) Unless (until) there is an inflation excursion, your costs of debt will be low, helping make capital projects more attractive – e.g., for aging infrastructure. (However, you should adjust downward the discount rates you use to reflect the low inflation expectations implicit in those low costs of capital.)
- 2) Slowing population and economic growth may reduce your required capital outlays and obviate growth controls, as demand grows more slowly than previously expected.
- 3) Continued low costs of debt, labor and other inputs will improve your balance sheets, income statements and reserves, perhaps reducing needs for rate and tax increases.

Ron Knecht, MS, JD & PE

Consulting Economist and Policy, Technical and Financial Analyst

Regent, Nevada System of Higher Education (2007-2018) Terms; Member of Audit, Investment & Major Projects, Business & Finance and Health Sciences System Committees

Ron Knecht is an economist and policy analyst, Registered Professional Mechanical Engineer (in CA), and law school graduate. He has spent half of his 42 working years in public service / education and half in private entrepreneurial small business, all in professional and managerial positions. He conducts a wide range of economic, financial, technical and policy analyses and has written and testified extensively as an expert witness in all those areas. In 2001-12, he worked at Nevada's Public Utilities Commission, ending his tenure as Senior Economist, and he now works as a consultant. Two or three times a year, he co-teaches a two-day seminar for SNL Financial on utility finance, cost of capital, economic and policy issues for regulators, professionals, managers, securities analysts and others from around the country and Canada. He also teaches a session twice a year on valuations.

Ron was elected to the Board of Regents of the Nevada System of Higher Education in 2006 as the representative for District 9 (the Lake Tahoe area of Carson City, Douglas, Lyon and Storey counties and southern Washoe County). For two years, he served as Chairman of the Business & Finance (budget) Committee and for one year as Vice-Chairman; and he chaired the Board's Audit Committee in 2007-08. He also has served on the Research & Economic Development, Board Development, and Cultural Diversity & Security committees and various institutional presidential selection and performance review committees; chairing two of them. He was re-elected in November 2012 to a second six-year term (with Churchill, Esmeralda, Lander and Mineral counties added to his district, but also with less of Washoe County). Ron has been a founder, executive or board member for six business firms and various charitable and public interest groups. He was elected to the Nevada Assembly for the 2002-04 term, representing District 40 (Carson and Washoe Cities).

The most important things in Ron's life are his wife, Kathy, their eleven-year-old daughter, Karyn, and Ron and Kathy's mothers and families. Born and raised in a small town in the Midwest, he has a lifetime record in public, community, charitable and professional services, and in writing, speaking and teaching. With some scholarship support, he worked his way through undergraduate and early graduate studies at a public university (Illinois). Spending most of his working career in San Francisco and Silicon Valley, he paid his way at private graduate and law schools (Stanford and San Francisco) while working full time. He has been a Nevadan By Choice since 2001.

All his life, Ron has been active in a wide range of athletics and outdoor activities, but his skills being very modest, he had to get his high school letters and college numerals as a distance runner. As an observer, he enjoys ballet and modern dance, symphony, opera, theater and film, and he collects baseball cards and pursues other hobbies. (25 June 2013)

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